



County Palatine of Chester.

REPORT

of the

Medical Officer of Health,

For the Year 1932.

BY

IAN MACKAY, M.B., Ch.B., D.P.H.

Presented to the

Public Health and Housing Committee

OF THE COUNTY COUNCIL,

October 20th, 1933.

Chester :

Phillipson and Golder Ltd., Printers, Frodsham Street.

REPORT

OF THE

Medical Officer of Health

For the Year ending December 31st, 1932,

*To the Public Health and Housing Committee of the
County Council of the County Palatine of Chester
and to the Members of the County Council.*

INDEX.

	PAGE
Ante-Natal Clinics	64
Ambulances	28
Area and Population	17
Births and Deaths	20, 25
Blind Persons Act, 1920	105
Centres, Welfare	66
Census, 1931	18
Deaths	20
Fever—Puerperal	53
Food and Drugs Act	104
Gold Cross Society	62
Health Visitors	vi.
Housing	98
Illegitimate Children	60
Infantile Mortality	21, 69
Infectious Disease (Notification of)	27
Isolation Hospitals	27
Local Government Act, 1929	106
Maternity and Child Welfare	51
Maternal Mortality	61
Mental Deficiency	108
Midwives	51
Milk and Dairies (Consolidation) Act, 1915	93
Milk Supply	93
Ministry of Health Enquiries	91
Mortality Tables ... ..	...Appendix
Nurse Children	64
Nursing Homes	54
Ophthalmia Neonatorum	60
Poor Law Medical Officers	xii.
Population	17
Refuse Disposal	104
Rivers Pollution	72
Sewerage and Sewage Disposal	72
Still-births	59
Staff of Public Health Department	v.
Tuberculosis	23, 32
Vaccination Officers	ix.
Vaccinators, Public	ix.
Veterinary Inspection	93
Venereal Diseases	30
Water Supply	84
Welfare Centres	66
Zymotic Deaths	21

INTRODUCTION.

*To the Chairman and Members of the
Public Health Committee of the
Cheshire County Council.*

Mr. Chairman and Gentlemen,

I have the honour to present to you my Report on the health and sanitary circumstances of the County for the year 1932. The vital statistics present no outstanding features. ~~Both the birth and death rates are~~ ^{is} slightly lower, and the infant mortality rate is slightly higher than for the previous year.

The position in regard to the treatment of the sick poor is much as it was last year but, at the time of writing, a report is before the appropriate Committee as to the future usage of the various institutions in the County.

Water supplies in Rural Districts have come in for a considerable amount of comment in the Press of recent date and I would draw particular attention to the section of the report on page 84 dealing with this subject. A comprehensive survey of all water supplies has been carried out during the year upon which, for convenience, a separate report has been made.

The appointment of a full-time Veterinary Officer at the end of 1931 was the beginning of a complete change of County policy with regard to the work under the Milk and Dairies Acts and Orders. Very considerable advances have been made during the year under review.

I would again draw attention to activities of the District Councils who continue to carry out the many duties imposed upon them in a most gratifying manner.

I am,
Mr. Chairman and Gentlemen,
Your obedient Servant,
IAN C. MACKAY, M.B., Ch.B., D.P.H.,
County Medical Officer.

Staff of the Public Health Department.

County Medical Officer of Health and Chief School Medical Officer	...	Ian Campbell Mackay, M.B., Ch.B., D.P.H.
Lady Assistant Medical Officer	...	Jean R. Shaw, M.B., Ch.B., D.P.H.
District Tuberculosis Officers	...	J. Hague, M.R.C.S., L.R.C.P., D.P.H. L. I. Henzell, M.D., B.Sc., D.P.H. D. W. Tough, M.B., Ch.B., D.P.H.
Assistant School Medical Officers	...	Moya McAfee, M.B., Ch.B., D.P.H. W. J. McIvor, M.B., Ch.B., D.P.H. Mary A. Thomas, M.B., Ch.B., D.P.H. Robert J. Clarke, M.B., Ch.B., D.P.H. Gladys Wilkinson, M.R.C.S., L.R.C.P.
County Analyst	...	S. Ernest Melling, F.I.C.
School Dental Surgeons	...	H. R. Parry, L.D.S. (Senior Dentist), S. O. Stewart, L.D.S. L. N. Alley, L.D.S. A. F. Hely, L.D.S. F. Jones, L.D.S. Fred L. Jones, L.D.S. E. S. Poulter, L.D.S. N. A. James, L.D.S.
School Oculists (Part-time)	...	W. Dunlop Hamilton, M.B., B.Ch., D.O.M.S. C. Jacobs, M.D., M.B., B.S.
County Sanitary Officer	...	F. Humphries.

CONSULTANTS FOR PUERPERAL CASES.

CHESTER	...	J. Gardiner Wigley, F.R.C.S., 40, King Street, Chester. (Tel. Chester 938).
MANCHESTER	...	C. Philip Brentnall, M.D., 18, St. John Street, Manchester. (Tel. Blackfriars 9984); and "Riversdale," Fielden Park, West Didsbury. (Tel. Didsbury 3762). Gordon Fitzgerald, M.D., Northern Assurance Buildings, Albert Square, Manchester. (Tel. Blackfriars 6458-9). F. H. Lacey, M.D., 16, St. John Street, Manchester. (Tels. 1500 Blackfriars and Didsbury 3092). J. W. A. Hunter, M.D., 12, St. John Street, Manchester. (Tels. Central 3615 and 2130 and Rusholme 333).
LIVERPOOL	...	Percy Malpas, F.R.C.S., 31, Rodney Street, Liverpool, and 110, Liverpool Road, Crosby. (Tel. Royal 4670. After 6 p.m., 1311 Crosby). A. Leyland Robinson, F.R.C.S., 57, Rodney Street, Liverpool. (Tel. 61 Royal).
STOKE	...	T. H. Richmond, F.R.C.S., 3, The Villas, off London Road, Stoke-on-Trent. (Tel. 48341 Hanley).
County Veterinary Officer	...	A. B. Kerr, M.R.C.V.S. and 21 part-time Veterinary Inspectors.

Health Visitors (39),

<i>Name.</i>	<i>Approximate District.</i>	<i>Maternity Centres. Tuberculosis Dispensaries. School Clinics.</i>
Barker, G.	... Mottram, Broadbottom, Tintwistle	Hollingworth Centre.
Bell, M.	... Wilmslow, Alderley Edge, Mobberley, Woodford, Mottram, Styal	Wilmslow Centre
Bird, B.	... Runcorn, Weston Point, Weston ...	Runcorn Centre (2 days) Runcorn Dispensary. Runcorn School Clinic (daily)
Bradley, C.	... Bredbury, Romiley, Woodley ...	Bredbury Centre. Hyde Dispensary.
Carr, K. E.	... Bebington, Bromborough, New Ferry, Thornton, Willaston, Burton, Neston	Neston Centre. Birkenhead Dispensary.
Commins, C.	... Poynton, Bollington, Rainow, Prestbury, Sutton, Winele, Adlington, Macclesfield Forest	Bollington Centre.
Dickson, S.	... Marple, Disley, Yeardsley, Kettleshulme	Marple Centre. Disley Centre. Whaley Bridge Centre. Compstall Centre.
Dobie, A.	... Guilden Sutton, Barrow, Ashton, Tarvin, Kelsall, Duddon, Utkinton, Tarporley, Tiverton, Tilston, Mouldsworth	Chester Castle Centre. Utkinton Centre. Tarporley Centre.
Finger, G. F.	... Congleton, Buglawton, Astbury, Odd Rode, Rode Heath, Church Lawton	Congleton Centre. Congleton Dispensary. Ante Natal Clinic.
Fox, M. E.	... Middlewich, Cranage, Byley, Wimboldsley, Tetton	Middlewich Centre.
Hanson, A.	... Stalybridge Borough, Romiley	Romiley Centre.
Johnson, G. W.	... Winsford... ..	Winsford Centre and Clinic and Dispensary
Kidd, W.	... Northwich, Winnington, Marston, Acton, Crowton, Barnton, Wincham	Northwich Dispensary. Northwich School Clinic (daily). Owley Wood Centre.
Kidd, E.	... Knutsford, Mere, Tabley, Lostock, Rudheath, Pickmere	Northwich Clinic & Centre. Knutsford Clinic.
Lea, D.	... Nantwich, Calveley, Worleston, Church Minshull, Wettenhall, Warmingham, Acton	Nantwich Centre. Nantwich School Clinic (daily).
Lunt, M.	... Ellesmere Port, Eastham, Childer Thornton, Great Sutton, Little Sutton	Ellesmere Port Dispensary. Do. School Clinic.
Marston, H.	... Hoole, Christleton, Waverton, Great Saughall, Backford, Mickle Trafford, Huxley, Hargrave, Tattenhall, Burwardsley, Harthill	Chester Dispensary. Hoole Centre and Ante Natal Clinic.
McNiel, M. A.	... Runcorn, Halton	Runcorn Dispensary Runcorn Centre (2 days). Runcorn Clinic (daily)
Meadows, R.	... Lymm, Warburton, Partington, Thelwall, High Legh	Lymm Centre. Lymm School Clinic

HEALTH VISITORS—*Continued.*

<i>Name.</i>	<i>Approximate District.</i>	<i>Maternity Centres. Tuberculosis Dispensaries. School Clinics.</i>	
Merry, A.	... Willaston, Wistaston, Stapeley, Hatherton, Hankelow, Audlem, Buerton, Wrenbury, Bicker- ton, Cholmondeley, Bunbury, Shavington, Peckforton		
Middlehurst, E.	... Northwich ...	Northwich Centre.	
Ollerenshaw, E.	... Dukinfield Borough	Dukinfield Centre (2 days)	
Owen, Esme	... Sandbach, Wheelock, Hassall, Betchton, Smallwood, Brereton, Holmes Chapel	Sandbach Centre.	
Owen, Elizabeth	... Hoylake, West Kirby, Meols, Greasby, Upton, Caldý, Thurstas- ton, Heswall, Barnston	Hoylake Centre. West Kirby Dispensary. Heswall Centre.	
Percival, P.	... Haslington, Alsager, Weston, Bar- thomley, Wybunbury, Dodding- ton, Checkley	Crewe Dispensary	
Pickering- Jenes, E.	... Altrincham, Timperley, Dunham Massey, Rostherne, Ashley, Bowdon, Ringway	Altrincham Dispensary. Altrincham Clinic.	
Ramsey, F. M.	... Northwich ...	Northwich Centre.	
Rimmer, A. A.	... Runcorn, Clifton ...	Runcorn Centre. Runcorn Dispensary. Runcorn Clinic.	
Ross, M.	... Ashton-on-Mersey, Sale, Carrington	Sale Centre (2 days) Sale Clinic.	
Rushton, S.	... Dukinfield Borough ...	Dukinfield Centre (2 days).	
Smith, A.	... Eccleston, Dodleston, Saighon, Rowton, Aldford, Handley, Farn- don, Pulford, Churton, Clutton, Hatton		
Spencer, M.	... Chelford, Henbury, Siddington, Gawsworth, Marton, North Rode, Swettenham, Goostrey, Ollerton, Withington, Eaton, Peover	Macclesfield Dispensary.	
Taylor, E. S.	... Stockton Heath, Grappenhall, Moore, Daresbury, Appleton, Stretton, Preston Brook, Dutton, Whitley	Stockton Heath Centre. Grappenhall Centre.	
Toft, D.	... Shocklach, Malpas, Tilston, Bick- ley, Cuddington, Wirswall, Marbury	Malpas Centre.	
Turcan, C.	... Ince, Thornton, Dunham, Alvanley, Frodsham, Norley, Kingsley	New Ferry Clinic (daily).	
Ward, S.	... Cheadle, Gatley, Cheadle Hulme, Northenden	Cheadle Centre. Cheadle Hulme Centre.	
Wells, G.	... Winsford, Over, Wharton, Hart- ford, Davenham, Moulton, Cudd- ington, Delamere, Little Budworth	Northwich Dispensary. Northwich Clinic.	
Wilkinson, M.	... Hazel Grove, Bramhall, Handforth, Pownall Green	Hazel Grove Centre. Stockport Dispensary.	
Wingfield, H.	... Sale ...	Sale Centre (2 days).	

Dental Nurses.

Babbington, D.
 Jones, Ethel
 Jones, S.
 Rees, G.

Thompson, D.
 Toft, Ethel
 Watts, G. M.
 Winnell, M.

Superintendent Clerk

... ..

Vincent O'Connor.

Offices—24, Nicholas Street, Chester.

Telephone No. 1017.

List of Public Vaccinators and Vaccination Officers.

(Areas served in brackets).

STALYBRIDGE AND DUKINFIELD AREA.

Public Vaccinators—Dr. W. E. C. Thomas, Stalybridge (whole of Stalybridge, Matley); Dr. Macfie, Dukinfield (whole of Dukinfield); Dr. Talbot, Mottram (Hollingworth, Mottram, Tintwistle, Hattersley).

Vaccination Officers—Miss A. Hewitt, Town Hall, Dukinfield (Dukinfield); John Broderick, Fern Cottages, Mottram (Hollingworth, Mottram, Tintwistle, Hattersley); George Flint, Town Hall, Stalybridge (Stalybridge, Matley).

BUCKLOW AREA.

Public Vaccinators—Dr. Bowring, Knutsford (Bexton, Marthall, Mobberley, Ollerton, Peover Inf., Peover Sup., Plumbly, Toft, Knutsford, Mere, Pickmere, Rostherne, Tabley Inf., Tabley Sup., Tatton); Dr. Pretsell, Lymm (Agden, Bollington, High Legh, Lymm, Millington, Partington, Warburton, Aston-by-Budworth); Dr. Nicholson, Sale (Ashton-upon-Mersey, Baguley, Carrington, Northenden, Sale); Dr. Byers, Wilmslow (Alderley Edge, Bollinfee, Northen Etchells, Styal, Wilmslow); Dr. Cooper, Altrincham (Altrincham, Ashley, Bowdon, Hale, Ringway, Timperley, Dunham Massey).

Vaccination Officers—H. A. Moore, Manor Cottage, Knutsford (Bexton, Marthall, Ollerton, Mobberley, Knutsford, Peover Inf., Peover Sup., Plumbly, Toft, Tatton, Mere, Pickmere, Rostherne, Tabley Inf., Tabley Sup.); Frank Wilson, Arbuthnot, Booth Hill, Lymm (Agden, Bollington, High Legh, Lymm, Millington, Partington, Warburton, Aston-by-Budworth); Harold T. Mercer, 10, Springfield Road, Sale (Baguley, Carrington, Northenden, Sale, Ashton-upon-Mersey); Thos. H. Peters, Moor Lane, Wilmslow (Alderley Edge, Bollinfee, Northen Etchells, Styal, Wilmslow); Thos. Pritchard, 5, Springfield Road, Altrincham (Altrincham, Ashley, Bowdon, Hale, Ringway, Timperley, Dunham Massey).

NANTWICH AREA.

Public Vaccinators—Dr. J. Munro, Nantwich (Acton, Aston-juxtra-Mondrum, Baddington, Bartherton, Brindley, Burland, Cholmondeston, Edlaston, Faddiley, Henhull, Hurleston, Nantwich, Poole, Stoke, Willaston, Worleston); Dr. Loney, Wrenbury (Baddiley, Broomhall, Chorley, Cholmondeley, Dodcot-cum-Wilkesley (part), Marbury, Newhall (part), Norbury, Sound, Wirswall, Woodcott, Wrenbury); Dr. R. T. Turner, Nantwich (Austerson, Blackenhall, Bridgemere, Checkley-cum-Wrinehill, Chorlton, Doddington, Hatherton, Hough, Hunsterson, Lea, Stapeley, Walgherton, Wybunbury); Dr. Leigh, Malpas (Agden, Bickley, Bradley, Chidlow, Chorlton, Cuddington, Duckington, Edge, Hampton, Larkton, Macefen, Malpas, Newton, Oldeastle, Overton, Stockton, Threapwood, Tushingham, Wigland, Wyclough); Dr. G. C. Thornton, Audlem (Audlem, Bucron, Coolc Pilate, Hankelow, Newhall (part), Dodcot-cum-Wilkesley (part)); Dr. Fitzgerald Arthur, Tarporley (Alpraham, Bickerton, Bulkeley, Bunbury, Calveley, Egerton, Haughton, Peckforton, Ridley, Spurstow, Wardle, Wettenhall); Dr. J. Worthington, Crewe (Church Coppenhall, Leighton, Church Minshull, Minshull Vernon, Warmingham, Woolstanwood, Crewe M.B. (part)); Dr. E. Grey, Crewe (Rope, Shavington, Wistaston, Crewe M.B. (part)); Dr. W. L. English, High Street, Haslington, Crewe (Barthomley, Basford, Crewe Rural, Haslington, Weston).

Vaccination Officers—Charles Griffiths, 256, Nantwich Road, Crewe (Barthomley, Basford, Church Coppenhall, Crewe Leighton, Haslington, Minshull Vernon, Shavington-cum-Gresty, Warmingham, Weston, Wistaston, Woolstanwood); R. H. Lewis, Victoria Chambers, Heath Street, Crewe (Crewe M.B., Monks Coppenhall); A. W. Davies, Poor Law Offices, Nantwich (Acton, Aston-j-Mondrum, Austerson, Baddiley, Baddington, Bartherton, Blakenhall, Bridgmere, Brindley, Burland, Poole, Rope, Stapeley, Willaston, Stoke, Nantwich U.D., Wybunbury, Checkley-c-

Wrinehill, Cholmondeston, Chorlton, Church Minshull, Doddington, Edlaston, Faddiley, Hatherton, Henhull, Hough, Hunsterson, Hurleston, Lea, Walgherton, Worleston); F. E. Davenport, 58, The Crofts, Nantwich (Alraham, Audlem, Bickerton, Broomhall, Buerton, Bulkeley, Bunbury, Calvey, Cholmondeley, Chorley, Coole Pilate, Agden, Bickley, Bradley, Chidlow, Chorlton, Cuddington, Duckington, Edge, Hampton, Threapwood, Wigland, Marbury, Norbury, Dodcot-c-Wilkesley, Egerton, Hankelow, Haughton, Newhall, Ridley, Peckforton, Sound, Wardle, Spurstow, Wettenhall, Woodcott, Wrenbury-c-Frith, Larkton, Macefen, Malpas, Newton, Oldcastle, Overton, Stockton, Tushingham, Wyclough, Wirswall).

MACCLESFIELD AND CONGLETON AREA.

Public Vaccinators—Dr. J. B. Hughes, Macclesfield (Macclesfield Borough); Dr. R. Proudfoot, Macclesfield (Gawsworth, Sutton, Rainow, Wildboardclough, Wincle, Macclesfield Forest, Hurdsfield); Dr. A. H. Shepard, Chelford (Over Alderley, Nether Alderley, Capesthorpe, Chelford, Birtles, Chorley, Henbury, Gt. Warford, Old Withington, Lower Withington, Snelson, Siddington); Dr. Conpe, Bollington (Bollington, Butley, Fallibroome, Mottram St. Andrew, Newton, Prestbury, Lyme Handley, Pott Shrigley, Tytherington, Upton); Dr. Davidson, Congleton (Bosley, Eaton, Marton, North Rode); Dr. Fellows, Poynton (Adlington, Poynton, Woodford); Dr. Allan, Whaley Bridge (Disley, Kettleshulme, Taxal, Yeardsley-c-Whaley); Dr. Bennett, Sandbach (Alsager, Arclid, Betchton, Bradwall, Church Lawton, Elton, Hassall, Moston, Odd Rode, Sandbach, Smallwood, Tetton, Wheelock); Dr. Picton, Holmes Chapel (Blackden, Brereton, Church Hulme, Cotton, Cranage, Davenport, Goostrey, Kermincham, Leese, Swettenham, Twemlow); Dr. Fern, Congleton (Congleton, Buglawton, Hulme Walfield, Moreton, Newbold Astbury, Somerford, Somerford Booths).

Vaccination Officers—G. B. Sturley, 84, Prestbury Road, Macclesfield (Macclesfield Boro. (part), Rainow, Hurdsfield, Over Alderley, Nether Alderley, Capesthorpe, Chelford, Birtles, Chorley, Gt. Warford, Old Withington, Lower Withington, Snelson, Bollington, Butley, Fallibroome, Mottram St. Andrew, Newton, Prestbury, Lyme Handley, Pott Shrigley, Tytherington, Upton, Adlington, Poynton, Woodford, Disley, Kettleshulme, Taxal, Yeardsley-c-Whaley); Arthur Millward, 84, Prestbury Road, Macclesfield (Macclesfield Boro. (part), Borough; F. W. Jones, Cumberland Street, Macclesfield (Gawsworth, Sutton, Wildboardclough, Wincle, Macclesfield Forest, Henbury, Siddington, Bosley, Eaton, Marton, North Rode); James Redfern, Congleton Road, Sandbach (Alsager, Arclid, Betchton, Bradwall, Church Lawton, Elton, Hassall, Moston, Odd Rode, Sandbach, Smallwood, Tetton, Wheelock); Percy Richardson, Middlewich Road, Holmes Chapel (Blackden, Brereton, Church Hulme, Cotton, Cranage, Davenport, Goostrey, Kermincham, Leese, Swettenham, Twemlow); Major A. Bevan, 8, Park View, Congleton (Congleton, Buglawton, Hulme Walfield, Moreton, Newbold Astbury, Somerford, Somerford Booths).

NORTHWICH AND RUNCORN AREA.

Public Vaccinators—Dr. J. B. Fulton, Northwich (Anderton, Cogshall, Comberbach, Marbury, Marston, Northwich (part), Wincham); Dr. J. W. Craw, Northwich (Allostock, Davenham, Leftwich, Lostock, Gralam, Nether Peover, Northwich (part), Winnington); Dr. W. N. Leak, Winsford (Clive, Eaton, Moulton, Marton, Over, Wharton, Darnhall, Little Budworth); Dr. W. G. Shaw, Weaverham (Cuddington, Delamere, Eddisbury, Hartford, Little Leigh, Northwich (part), Oakmere, Weaverham); Dr. S. L. Melville, Middlewich (Bostock, Byley, Kinderton, Lach Dennis, Middlewich, Rudheath, Sproston, Stanthorne, Whatcroft, Wimboldsley); Dr. Cullen, Runcorn (Aston, Aston Grange, Clifton, Halton, Norton, Stockham, Sutton, Weston, Runcorn (U.D.)); Dr. Bower, Stretton (Acton Grange, Antrobus, Appleton, Bartington, Thelwall, Budworth, Crowley, Daresbury, Dutton, Walton Inf., Walton Sup., Whitley Inf., Whitley Sup., Grappenhall, Hatton, Keckwick, Latchford Without, Moore, Newton-by-Daresbury, Preston o'th Hill, Seven Oaks, Stockton Heath, Stretton); Dr. James, The Knoll, Frodsham (Alvanley, Frodsham, Frodsham Lordship, Helsby, Kingsley, Kingswood, Manley, Newton-by-Frodsham, Norley).

Vaccination Officers—Stanley S. Trevor, Winnington Hill, Northwich (Allostock, Anderton, Cogshall, Comberbach, Leftwich, Lostock Gralam, Marbury, Marston, Nether Peover, Northwich (part), Wincham, Winnington); Fred Moore, Grange Lane, Winsford (Clive, Darnhall, Eaton, Little Budworth,, Marton, Moulton, Over, Wharton); F. T. Morgan (Acton, Barnton, Crowton, Cuddington, Delamere, Eddisbury, Hartford, Little Leigh, Northwich (part), Oakmere, Weaverham); J. Carter, Middlewich (Bostock, Byley, Davenham, Kinderton, Lach Dennis, Middlewich, Rudheath, Sproston, Stanthorne, Whatcroft, Wimboldsley); Jas. Pearson, 105, Church Street, Runcorn (Aston, Aston Grange, Clifton, Halton, Norton, Stockham, Sutton, Weston, Runcorn U.D.); A. J. Massey, Fairfield Road, Stockton Heath (Acton Grange, Antrobus, Appleton, Bartington, Budworth, Crowley, Daresbury, Dutton, Grappenhall, Hatton, Keckwick, Latchford Without, Moore, Newton-by-Daresbury, Preston o'th Hill, Seven Oaks, Stockton Heath, Stretton, Thelwall, Walton Inf., Walton Sup., Whitley Inf., Whitley Sup.); John Holland, Main Street, Frodsham (Alvanley, Frodsham, Frodsham Lordship, Helsby, Kingsley, Kingswood, Manley, Newton-by-Frodsham, Norley).

HYDE AND CHEADLE AREA.

Public Vaccinators—Dr. Godson, Cheadle (Cheadle, Stockport Etchells, Handforth); Dr. T. Moore, Hazel Grove (Hazel Grove and Bramhall); Dr. Paterson, Hyde (Hyde); Dr. Cant, Woodley (Bredbury (whole of), Compstall, Romiley); Dr. Jackson, Marple (Marple (whole of)).

Vaccination Officers—J. H. Johnson, Midland Bank Chambers, Cheadle, near Stockport (Cheadle, Stockport, Etchells, Handforth); H. Whalley, Union Offices, Stockport (Hyde (excluding former Parishes of Godley and Newton), Bredbury, Romiley, Compstall); F. Ardern, Council Offices, Hazel Grove (Hazel Grove and Bramhall); C. S. Marlow, Council Offices, Marple (Marple); W. H. Brown, 113, Bennett Street, Newton, (Hyde (former Parishes of Godley and Newton)).

WIRRAL AREA.

Public Vaccinators—Dr. Bicknell, West Kirby (Hoyle Urban District); Dr. I. W. Cowen, Bebington (Bebington Urban District); Dr. Grant Neston (Neston and Wirral Urban Districts); Dr. Gerrard, Ellesmere Port (Ellesmere Port Urban District).

Vaccination Officers—J. R. Bird, 40, Church Road, Hoyle (Arrowe, Caldby, Frankby, Grange, Greasby, Hoyle, Irby, Saughall Massie, Thurstaston, Upton, Woodchurch); W. Roberts, Hinderton Road, Neston (Willaston, Bidston-cum-Ford, Noctorum, Barnston, Pensby, Burton, Gayton, Heswall, Ness, Neston, Puddington, Raby, Thornton Hough); G. Tomlinson, 9, Rocklands Avenue, Bebington (Bebington, Bromborough, Brimstage, Spital, Storeton); A. Clough, Bradley's Central Buildings, Station Road, Ellesmere Port (Childer Thornton, Eastham, Hooton, Ledsham, Great Sutton, Little Sutton, Ellesmere Port).

CHESTER AND TARVIN AREA.

Public Vaccinators—Dr. W. J. Russell, Hoole (Chester Castle or Gloverstone, Hoole, Bache, Claverton, Backford, Caughall, Christleton, Dunham Hill, Hapsford, Ledsham, Littleton, Stoke, Bridge Trafford, Wimbolds Trafford, Wervin, Shotwick, Dodleston, Eccleston, Mollington, Moston, Poulton, Little Saughall, Newton-by-Chester, Blacon-cum-Crabwall, Marlston-cum-Lache, Great Boughton, Chorlton-by-Backford, Croughton, Elton, Hoole Village, Picton, Little Stanney, Thornton-le-Moors, Mickle Trafford, Upton-by-Chester, Capenhurst, Woodbank, Lr. Kinnerton, Eaton, Lea-by-Backford, Pulford, Great Saughall, Shotwick, Park); Dr. J. Fielding, Hill House, Kelsall (Ashton, Barrow, Burton, Duddon, Hockenhull, Huntington, Huxley, Iddenshall, Mouldsworth Rowton, Tarvin, Willington, Bruen Stapleford, Cotton Abbotts, Cotton Edmunds, Clotton Hoofield, Foulk Stapleford, Guilden Sutton, Horton-cum-Peel, Kelsall, Pryors Hayes, Saughton, Waverton); Dr. W. M. Cummins, Tattenhall, Chester (Aldersley, Chowley, Handley, Hatton, Tattenhall, Golborn Bellow, Broxton, Burwardsley, Harthill, Newton-

by-Tattenhall, Clutton, Golborn David); Dr. W. Parker, Farndon, Chester (Aldford, Buerton, Carden, Churton Heath, Coddington, Edgerley, Grafton, King's Marsh, Stretton, Shocklach Church, Barton, Caldecott, Churton-by-Aldford, Churton-by-Farndon, Crewe-by-Farndon, Farndon, Horton-by-Malpas, Lea Newbold, Tilston, Shocklach Oviatt); Dr. Campbell, Tarporley (Beeston, Rushton, Tiverton, Utkinton, Eaton, Tarporley, Tilston Fearnall).

CHESTER AND TARVIN AREA.

Vaccination Officers—Mr. A. Wigglesworth, 11, Pickering Street, Hoole, Chester (Chester Castle or Gloverstone, Hoole, Bache, Claverton, Backford, Caughall, Christleton, Hapsford, Elton, Ledsham, Littleton, Stoke, Bridge Trafford, Wimbolds Trafford, Wervin, Shotwick, Dodleston, Eccleston, Mollington, Moston, Poulton, Little Saughall, Newton-by-Chester, Blacon-cum-Crabwall, Marlston-c-Lache, Gt. Boughton, Chorlton-by-Backford, Crough-ton, Dunham Hill, Hoole Village, Picton, Little Stanney, Thornton-le-Moors, Mickle Trafford, Upton-by-Chester, Capenhurst, Woodbank, Lower Kinner-ton, Eaton, Lea-by-Backford, Pulford, Gt. Saughall, Shotwick Park); Mr. R. E. Blythe, Tattenhall, nr. Chester (Ashton, Barrow, Burton, Duddon, Hockenhull, Huntington, Huxley, Iddenshall, Mouldsworth, Rowton, Tarvin, Willington, Broxton, Chowley, Harthill, Tattenhall, Clutton, Aldford, Barton, Caldecott, Churton Heath, Coddington, Edgerley, Farndon, King's Marsh, Lea Newbold, Tilston, Beeston, Eaton, Tarporley, Tiverton, Bruen Stapleford, Cotton Abbots, Cotton Edmunds, Clotton Hoofield, Foulk Stapleford, Guilden Sutton, Horton-cum-Peel, Kelsall, Pryor's Hayes, Saughton, Waverton, Aldersey, Burwardsley, Handley, Hatton, Newton-by-Tattenhall, Golborn Bellow, Golborn David, Buerton, Carden, Churton-by-Aldford, Churton-by-Farndon, Crewe-by-Farndon, Grafton, Horton-by-Malpas, Stretton, Shocklach Church, Shocklach Oviatt, Rushton, Tilston Fearnall, Utkinton.

POOR LAW INSTITUTIONS.

Public Vaccinators—Bucklow: Dr. H. Bowring, Knutsford; Nantwich: Dr. Munro, Nantwich; Macclesfield: Dr. J. B. Hughes, Macclesfield; Congleton: Dr. Henderson, Sandbach; Northwich: Dr. J. W. Craw, Northwich; Runcorn: Dr. Bower, Stretton; Tarvin: Dr. H. L. W. Woodroffe, Chester; Wirral: Dr. J. B. Yeoman, Neston.

Poor Law Medical Out-Relief.

No. 1 (BUCKLOW) AREA.

District No. 1 (Altrincham)—Altrincham (21356), Bowdon (3285), Dunham Massey (1694), Hale (10667), Timperley (7080).

Medical Officer—Arthur Torkington Blease, of Altrincham.

District No. 2 (Knutsford North)—Bexton (132), Marthall (626), Ollerton (274), Peover Inferior (100), Peover Superior (617), Plumbley (459), Toft (214).

Medical Officer—Harold Bowring, of Knutsford.

District No. 3 (Knutsford South)—Agden (85), Aston-by-Budworth (364), Bollington (174), High Legh (688), Knutsford (5415), Mere (379), Pickmere (341), Rostherne (284), Tabley Inferior (110), Tabley Superior (469), Tatton (61), Millington (258).

Medical Officer—Harold Bowring, of Knutsford.

District No. 4 (Lymm)—Lymm (5639), Partington (816), Warburton (354).

Medical Officer—Thomas Pretsell, of Lymm.

District No. 5 (Sale)—Carrington (504), Sale (28071).

Medical Officer—William Nicholson, of Sale.

District No. 6 (Wilmslow)—Ashley (359), Ringway (602), Styal (1336), Wilmslow (9760), Alderley Edge (3145), Mobberley (1735).

Medical Officer—Alfred Byers, of Wilmslow.

No. 2 (MACCLESFIELD AND CONGLETON) AREA.

District No. 1 (Macclesfield)—Macclesfield Town (34905).

Medical Officer—John Brierley Hughes, of Macclesfield.

District No. 2 (Sutton and Rainow)—Sutton (1426), Rainow (1109), Wildboarclough (162), Wincle (208), Macclesfield Forest (125), Hurdsfield (441), Gawsworth (709).

Medical Officer—Robert Proudfoot, of Macclesfield.

District No. 3 (Alderley)—Alderley Over (333), Alderley Nether (757), Capesthorpe (97), Chelford (341), Birtles (50), Chorley (401), Henbury (352), Warford Great (900), Withington Old (125), Withington Lower (531), Snelson (200), Siddington (344).

Medical Officer—Arthur Harold Shephard, of Chelford, Crewe.

District No. 4 (Bollington)—Bollington (5027), Butley (554), Fallibroome (72), Mottram St. Andrew (444), Newton (82), Prestbury (487), Lyme Handley (211), Pott Shrigley (441), Tytherington (318), Upton (278).

Medical Officer—Geoffrey Cooper, of Bollington near Macclesfield.

District No. 5 (Eaton and Marton)—Bosley (359), Eaton (325), Marton (249), North Rode (268).

Medical Officer—Richard Baring Davidson, of Congleton.

District No. 6 (Poynton)—Adlington (689), Poynton (3944), Woodford (801).

Medical Officer—Fredk. McFarlane Fellows, of Poynton, near Stockport.

District No. 7 (Whaley Bridge)—Kettleshulme (349), Taxal (679), Yeardsley-cum-Whaley (1745), Disley (3212).

Medical Officer—Fred Garnet Allan, of Whaley Bridge, via Stockport.

District No. 8 (Congleton)—Buglawton (1651), Congleton (12885), Hulme Whalfield (80), Moreton (130), Newbold Astbury (571), Somerford (102), Somerford Booths (162).

Medical Officer—Alfred James Pirie, of Congleton.

District No. 9 (Sandbach)—Arclid (306), Betchton (614), Bradwall (1307), Elton (448), Hassall (318), Moston (134), Sandbach (6411), Smallwood (615), Tetton (141), Wheelock (756).

Medical Officer—Andrew Henderson, of Sandbach.

District No. 10 (Alsager)—Alsager (2852), Church Lawton (874), Odd Rode (3307).

Medical Officer—Matthew James Hazlett Sayers, of Alsager.

District No. 11 (Church Hulme)—Blackden (121), Brereton (469), Church Hulme (1143), Cotton (33), Cranage (399), Davenport (81), Goostrey (508), Kermincham (129), Leese (119), Swettenham (150), Twemlow (107).

Medical Officer—Lionel James Picton, of Holmes Chapel.

No. 3 (NANTWICH) AREA.

District No. 1 (Audlem)—Audlem (1346), Buerton (421), Coole Pilate (52), Dodcote C. W. (part) (450), Hankelow (175), Newhall (part) (200).

Medical Officer—Gifford Campion Thornton, of Audlem, Crewe.

District No. 2 (Bunbury)—Alpraham (436), Bickerton (259), Bulkeley (120), Bunbury (882), Calveley (270), Egerton (101),

Haughton (150), Peckforton (161), Ridley (160), Spurstow (333), Wardle (140), Wettenhall (186).

Medical Officer—Maurice Marshall Fitzgerald Arthur, of Bunbury. Tarporley.

District No. 3 (Crewe N.)—Church Coppenhall (996), Leighton (141), Minshull Vernon (324), Warmingham (215), Woolstanwood (137), Crewe M. B. (part) (25569).

Medical Officer—James Worthington, of Crewe.

District No. 4 (Crewe S.)—Rope (92), Shavington (2303), Wistaston (1504), Crewe M. B. (part) (20500).

Medical Officer—Edward Gray, of Crewe.

District No. 5 (Haslington)—Barthomley (257), Basford (177), Crewe (Rural) (363), Haslington (2633), Weston (490).

Medical Officer—Wm. Larmour English, of Crewe.

District No. 6 (Nantwich)—Acton (206), Aston-j-M. (139), Baddington (112), Batherton (53), Brindley (187), Burland (595), Cholmondeston (158), Edleston (60), Faddiley (211), Henhull (123), Hurleston (110), Nantwich U. D. (7133), Poole (114), Stoke (213), Willaston (2834), Worleston (548), Church Minshull (265).

Medical Officer—John Douglas Ross Munro, of Nantwich.

District No. 7 (Wrenbury)—Baddiley (219), Broomhall (184), Chorley (162), Cholmondeley (278), Dodcote C. W. (part) (97), Marbury (282), Norbury (271), Wirswall (158), Newhall (part) (445), Sound (243), Woodcott (18), Wrenbury (589).

Medical Officer—Ralph Edward Loney, of Wrenbury, Nantwich.

District No. 8 (Wybunbury)—Austerson (50), Blakenhall (178), Bridgemere (149), Checkley C. W. (235), Chorlton (76), Doddington (66), Hatherton (287), Hough (299), Hunsterson (175), Lea (37), Stapeley (634), Walgherton (159), Wybunbury (644).

Medical Officer—Richard Timmis Turner, of Nantwich.

District No. 9 (Malpas)—Agden (75), Bickley (302), Bradley (136), Childow (13), Chorlton (90), Cuddington (236), Duckington (65), Edge (238), Hampton (366), Larkton (37), Macefen (65), Malpas (1101), Newton (13), Oldcastle (84), Overton (98), Stockton (20), Threapwood (279), Tushingham (234), Wigland (104), Wychough (16).

Medical Officer—Albert Leigh, of Malpas.

No. 4 (NORTHWICH AND RUNCORN) AREA.

District No. 1 (Northwich)—Anderton (329), Cogshall (93), Comberbach (388), Marbury (37), Marston (530), Northwich (part) (10285), Wincham (1003).

Medical Officer—James Boyd Fulton, of Northwich.

District No. 2 (Northwich)—Allostock (436), Davenham (644), Leftwich (1021), Lostock Gralam (1928), Nether Peover (200), Northwich (part) (5729), Winnington (1268).

Medical Officer—John Woodruff Craw, of Northwich.

District No. 3 (Winsford)—Clive (178), Eaton (75), Moulton (1220), Winsford U. D. (part) (6495).

Medical Officer—Walter Norman Leak, of Winsford.

District No. 4 (Over)—Darnhall (210), Little Budworth (568), Marton (597), Winsford U. D. (part) (4503).

Medical Officer—Georke Okell, of Winsford.

District No. 5 (Weaverham)—Acton (516), Barnton (3198), Crowton (474), Cuddington (698), Delamere (713), Eddisbury (402), Hartford (1420), Little Leigh (422), Northwich U. D. (part) (2718), Oakmere (425), Weaverham (3179).

Medical Officer—William Geoffrey Shaw, of Northwich.

District No. 6 (Middlewich)—Bostock (139), Byley (146), Kinderton (432), Lach Dennis (155), Middlewich (5458), Rudheath (2733), Sproston (167), Stanthorne (290), Whatcroft (119), Wimboldsley (145).

Medical Officer—Samuel Lightfoot Melville, of Middlewich.

District No. 7 (Runcorn)—Aston (220), Aston Grange (36), Clifton (178), Halton (1694), Norton (part) (184), Stockham (21), Sutton (453), Weston (3783), Runcorn (Urban District) (18127).

Medical Officer (temporary)—Jerome B. Murphy, of Runcorn.

District No. 8 (Budworth)—Acton Grange (part) (110), Antrobus (380), Appleton (1196), Bartington (64), Budworth (447), Crowley (139), Daresbury (86), Dutton (454), Grappenhall (part) (2236), Hatton (297), Keckwick (54), Latchford Without (1266), Moore (part) (475), Newton-by-Daresbury (179), Preston o'th' Hill (355), Seven Oaks (163), Stockton Heath (part) (4844), Stretton (371), Thelwall (part) (509), Walton Inferior (1027), Walton Superior (1175), Whitley Inferior (171), Whitley Superior (339).

Medical Officer—Harry Edward Bower, of Stretton, near Warrington.

District No. 9 (Frodsham)—Alvanley (309), Frodsham (3140), Frodsham Lordship (1563), Helsby (1960), Kingsley (1011), Kingswood (557), Manley (358), Newton by Frodsham (421), Norley (820).

Medical Officer—Harold Blades Ellison, of Frodsham.

No. 5 (TARVIN) AREA.

District No. 1 (Hoole)—Bache (62), Hoole (5889), Hoole Village (226), Newton (2581), Upton (2667), Moston (81), Chorlton (82), Backford (124), Croughton (21), Little Stanney (170), Thornton (part) (158), Elton (252), Hapsford (112), Picton (97), Wimbolds Trafford (73), Bridge Trafford (50), Mickle Trafford (263), Caughall (13), Stoke (101), Dunham (316), Huntington (144), Rowton (168), Waverton (479), Cotton Abbots (11), Cotton Edmunds (65), Barrow (910), Guilden Sutton (404), Great Boughton (2690), Littleton (336), Christleton (997), Wervin (103).

Medical Officer—William James Alexander Russell, of Hoole.

District No. 2 (Chester Rural)—Shotwick (73), Shotwick Park (26), Woodbank (88), Great Saughall (865), Little Saughall (304), Blacon (788), Kinnerton (113), Dodleston (247), Pulford (261), Poulton (119), Marlston (101), Claverton (—), Eccleston (291), Eaton (143), Castle (228), Capenhurst (157), Mollington (336), Lea (165), Ledsham (139), Little Sutton (part) (—), Burton (part) (—), Puddington (part) (312), Willaston (part) (20).

Medical Officer—Isaac Solomon Sidney Fox, of Chester.

District No. 3 (Tarvin)—Ashton (430), Burton-by-Tarporley (41), Bruen Stapleford (114), Clotton Hoofield (382), Duddon (194), Foulk Stapleford (205), Hockenhull (21), Horton-cum-Peel (37), Huxley (253), Iddenshall (14), Kelsall (874), Mouldsworth (194), Pryors Hayes (11), Tarvin (1251), Willington (167).

Medical Officer—Charles Robert Fielding, of Kelsall.

District No. 4 (Tattenhall)—Aldersey (92), Broxton (507), Burwardsley (298), Chowley (61), Handley (250), Harthill (95), Hatton (132), Newton-by-Tattenhall (198), Tattenhall (1008), Clutton (56), Golborne Bellow (103), Golborne David (84), Saughton (347).

Medical Officer—William McAllister Cummins, of Tattenhall.

District No. 5 (Farndon)—Aldford (347), Barton (103), Buerton (61), Caldecott (42), Carden (151), Churton-by-Aldford (191), Churton-by-Farndon (145), Churton Heath (15), Coddington (95), Crewe-by-Farndon (47), Edgerley (11), Farndon (560), Grafton (13), Horton-by-Malpas (120), King's Marsh (63), Lea Newbold (39), Stretton (79), Tilston (347), Shocklach Church (162), Shocklach Oviatt (149).

Medical Officer—William Parker, of Farndon.

District No. 6 (Tarpurley)—Beeston (268), Tarpurley U. D. (2452), Tilston Fearnall (146), Tiverton (525).

Medical Officer—Cecil Mackenzie Hewer, of Tarpurley.

No. 6 (WIRRAL) AREA.

District No. 1 (Bebington)—Urban District of Bebington (32034).

Medical Officer—John William Cowen, of Rock Ferry.

District No. 2 (Neston and Wirral)—Urban District of Neston (7934, and Wirral (9580).

Medical Officer—John Brown Yeoman, of Neston.

District No. 3 (Hoylake)—Urban District of Hoylake (19764).

Medical Officer—Arthur Bicknell, of West Kirby.

District No. 4 (Ellesmere Port)—Urban District of Ellesmere Port (22930).

Medical Officer—Robert Francis Gerrard, of Ellesmere Port.

No. 7 (STALYBRIDGE AND DUKINFIELD) AREA.

District No. 1 (Stalybridge)—Stalybridge (part of) (24831).

Medical Officer—Wm. John Hancock, of Stalybridge.

District No. 2 (Stalybridge)—Stalybridge (part of) (24831).

Medical Officer—Thomas William Ewart Chambers, of Stalybridge.

District No. 3 (Dukinfield)—Dukinfield (19311).

Medical Officer—John Macfie, of Dukinfield.

District No. 4 (Hattersley)—Hattersley (280), Matley (348), Hollingworth U. D. (2299), Mottram U. D. (2636), Tintwistle (1392).

Medical Officer—Ernest Talbot, of Mottram.

No. 8 (HYDE AND CHEADLE) AREA.

District No. 1 (Hyde)—Hyde (32075).

Medical Officer—Matthew Wallace Paterson, of Hyde.

District No. 2 (Cheadle)—Cheadle and Gatley U. D. (18473), Handforth U. D. (1031).

Medical Officer—John H. Godson, of Cheadle.

District No. 3 (Hazel Grove)—Hazel Grove and Bramhall U. D. (13300).

Medical Officer—Thomas Moore, of Hazel Grove.

District No. 4 (Bredbury)—Bredbury and Romiley U. D. (10876), Compstall U. D. (865).

Medical Officer—Fredk. Cant, of Woodley.

District No. 5 (Marple)—Marple U. D. (7389).

Medical Officer—James Jackson, of Marple.

REPORT OF THE Medical Officer of Health,

For the Year ended December 31st, 1932.

Section I.-Area and Population.

Area.

The present acreage of the County is 631,180 acres.

Houses.

The number of "structurally separate dwellings" in the Administrative County in 1931 was 171,107, the number of private families being 175,237.

In the Table accompanying this Report particulars relating to population, area, birth, deaths, &c., are given for each District separately and for the County as a whole. A brief reference may be made to the more important of these figures.

Population.

The population of the Administrative County, as enumerated at the Census of 1931, was 675,296. The estimate of the Registrar-General for 1932, is:—

6 Municipal Boroughs	...	169,880
32 Other Urban Districts	... ..	302,420
12 Rural Districts	... ..	208,400
		<hr/>
		680,700
		<hr/>

The Registrar-General in a Memorandum published in March, 1933, states:—

The annual distribution of his returns of births and deaths for the past year affords the Registrar-General an opportunity of directing the attention of Medical officers of Health and others using the returns to some points upon which experience has shown that misunderstandings arise.

1. The numbers of live births, stillbirths and deaths are those **registered** (but excluding re-registrations) during the calendar year (*i.e.*, **1st January—31st December, inclusive**) and are corrected for inland and outward transfers. They will differ, therefore, from uncorrected figures compiled locally either for the calendar year or for a period of fifty-two weeks.
2. The deaths are classified under the headings given in the Abridged List of Causes, as used in England and Wales and Northern Ireland (see page XXIV of the Manual of the International List of Causes of Death—1931). The attention of Medical Officers is drawn to the revised “Rules for the selection of one from two or more jointly stated causes of death” which appears on page XXVIII of the Manual. The classification of some deaths is modified in the light of fuller information obtained from the certifying practitioner in response to special inquiries, the principal subjects of these enquiries being indicated in a table published in the annual reports of the Registrar-General. This possible source of discrepancy between the returns of the Registrar-General and those compiled locally should be borne in mind particularly in regard to the causes of death dealt with in that table.

The Registrar-General’s estimate of the resident population in each district is given herewith :—

Municipal Boroughs. (6)			Population at Census, 1931.	Population supplied by Registrar- General, 1932.	Area in Acres.
Congleton	...	...	12885	12980	2572
Crewe	...	...	46069	45810	2184
Dukinfield	...	...	19311	19390	1407
Hyde	...	...	32075	31980	3079
Macclesfield	...	...	34905	34840	3214
Stalybridge	...	...	24831	24880	3132
			170076	169880	15588

Urban Districts. (32)	Population at Census, 1931.	Population supplied by Registrar- General, 1932.	Area in Acres.
Alderley Edge ...	3145	3084	678
Alsager ...	2852	2868	2241
Altrincham ...	21356	21300	1425
Bebington & Bromborough	26740	27520	3446
Bollington ...	5027	4993	1291
Bowdon ...	3285	3364	850
Bredbury & Romiley	10876	11230	3990
Buglawton ...	1651	1691	2911
Cheadle & Gatley	18473	19300	5087
Compstall ...	865	839	903
Ellesmere Port & Whitby	18911	19320	3449
Hale ...	10667	10840	1288
Handforth ...	1031	1139	1311
Hazel Grove & Bramhall	13300	13620	5447
Hollingworth ...	2299	2250	2086
Hoole ...	5889	5936	334
Hoyle & West Kirby	16631	16780	1979
Knutsford ...	5879	5685	1760
Lymm ...	5643	5686	4374
Marple ...	7389	7333	3055
Middlewich ...	5458	5504	1082
Mottram-in-Longdendale	2636	2591	1084
Nantwich ...	7133	7095	703
Neston & Parkgate	5676	5761	3331
Northwich ...	18732	18410	1398
Runcorn ...	18127	18090	1274
Sale & Ashton	28071	28720	3629
Sandbach ...	6411	6456	2694
Tarporley ...	2452	2471	6195
Wilmslow ...	9760	9898	5090
Winsford ...	10998	10900	5785
Yeardsley-cum-Whaley	1745	1746	1323
	299108	302420	81493

Rural Districts.
(12)

Bucklow ...	20115	20870	51239
Chester ...	16165	16430	34253
Congleton ...	13124	13390	40152
Disley ...	3212	3196	2466
Macclesfield ...	19161	19250	79494
Malpas ...	4283	4308	21405
Nantwich ...	26626	26640	98466
Northwich ...	26498	26820	54300
Runcorn ...	32725	32700	49117
Tarvin ...	13279	13110	56871
Tintwistle ...	2020	2006	13619
Wirral ...	28904	29680	32717
	206112	208400	534099
Administrative County ...	675296	680700	631180

Rateable Value.

The rateable value of the Administrative County of Cheshire for County Rate purposes is £3,858,384. A Penny rate over the whole County represents the sum of £14,919 (estimated).

Section II.-Births and Deaths.

Births.

The total number of births registered in the Administrative County during 1932 was 9,209 equal to a birth-rate of 13.5 per 1,000 of the estimated population. This is a slight decrease from last year, when the number of births was 9,610 giving a rate of 14.1. Comparative statistics are:—

England and Wales	...	...	15.3
118 Great Towns	...	...	15.4
126 Smaller Towns	...	...	15.4
London	...	...	14.2

The highest birth-rates were:—

Ellesmere Port U.D.	...	...	22.8
Buglawton U.D.	...	...	21.2
Malpas R.D.	...	...	17.4
Northwich R.D.	...	...	17.0

The lowest were:—

Alsager U.D.	...	...	7.3
Hoylake U.D.	...	...	8.4
Tintwistle R.D.	...	...	8.9
Alderley Edge U.D.	...	...	9.0

The total number of illegitimate births in the Administrative County was 322 as against 392 in 1931.

Deaths.

The total number of deaths occurring in the Administrative County during 1932 was 8,055, equal to a death-rate of 11.8 ~~per~~ per 1,000 of the estimated population. In 1931 the death-rate was 11.3. Comparative statistics are:—

England and Wales	...	...	12.0
118 Great Towns	...	...	11.8
126 Smaller Towns	...	...	10.8
London	...	...	12.3

The rates vary very considerably. The highest rates are recorded in the following districts:—

Hollingworth U.D.	...	...	17.7
Mottram U.D.	...	...	17.7
Nantwich U.D.	...	...	15.9
Marple U.D.	...	...	15.4
Bowdon U.D.	...	...	15.1

The lowest death-rates were:—

Ellesmere Port U.D.	...	...	8.8
Cheadle U.D.	...	...	9.2
Bebington U.D.	...	...	8.9
Wirral R.D.	...	...	9.5

Births and Deaths.

The figures for the past 19 years are as follows:—

				Births.		Deaths.
1932	...	...	...	9,209	...	8,055
1931	...	...	...	9,610	...	7,679
1930	...	...	...	9,976	...	7,519
1929	...	...	...	9,794	...	8,474
1928	...	...	...	9,968	...	7,520
1927	...	...	...	10,080	...	7,606
1926	...	...	...	10,333	...	7,368
1925	...	...	...	10,356	...	7,670
1924	...	...	...	10,687	...	7,601
1923	...	...	...	11,061	...	7,101
1922	...	...	...	11,395	...	7,691
1921	...	...	...	12,440	...	7,197
1920	...	...	...	14,075	...	7,246
1919	...	...	...	9,999	...	8,066
1918	...	...	...	9,838	...	8,903
1917	...	...	...	9,970	...	7,278
1916	...	...	...	11,537	...	7,730
1915	...	...	...	12,078	...	8,286
1914	...	...	...	13,019	...	7,816

Zymotic Diseases.

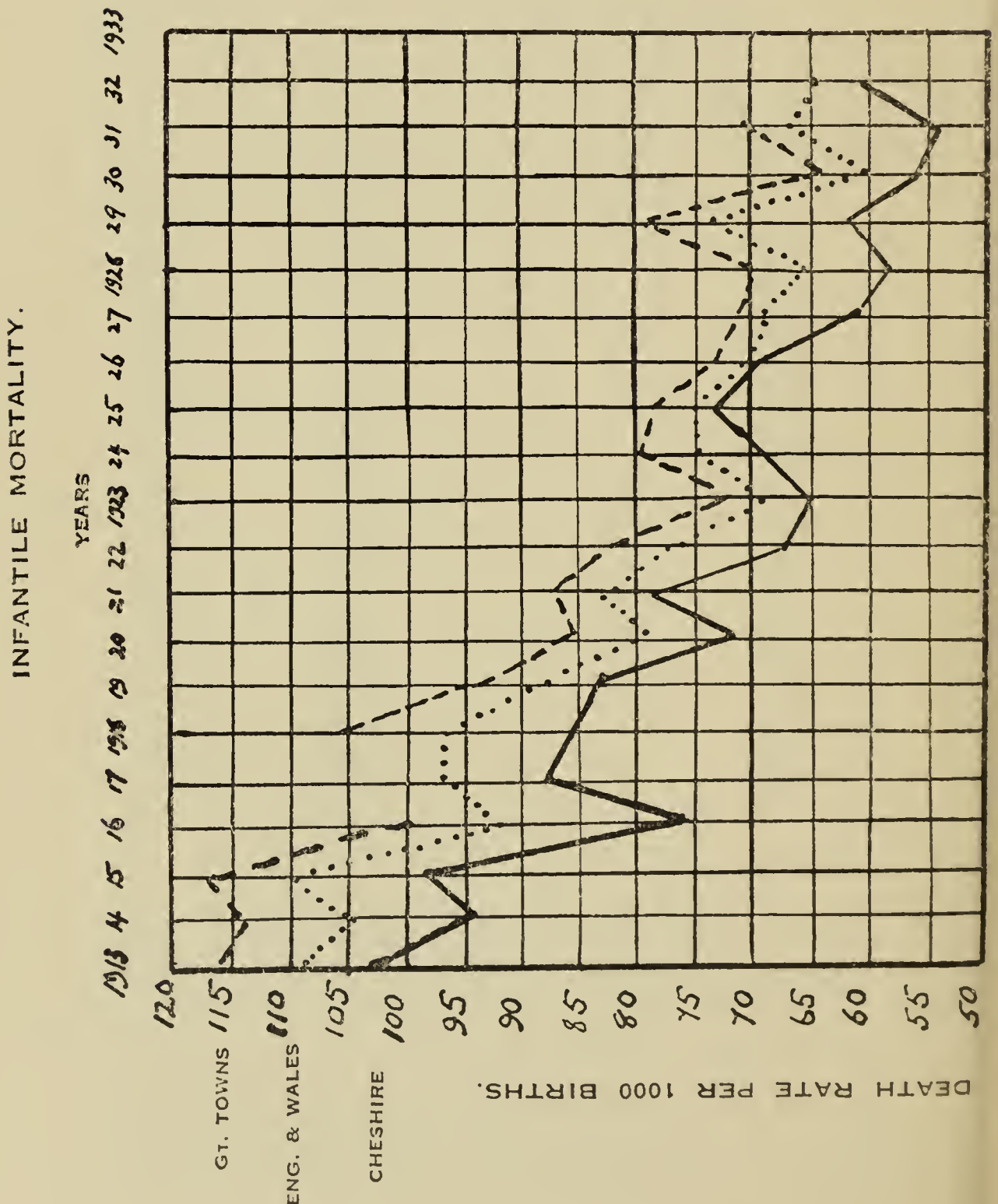
The total number of deaths from this special group of disease in the Administrative County during 1932 was 195, equal to a zymotic death-rate of 0.28 per 1,000 of the estimated population.

Infantile Mortality.

Your Council commenced their scheme of Maternity and Child Welfare on the 1st April, 1916. The larger portion of the County comes within the scheme, but there are a few districts which are responsible for their own schemes.

There have been 567 deaths of infants under one year in the Administrative County during 1932, a number equivalent to 61 per 1,000 of the recorded births. In 1931 there were 525 deaths, the rate being 54 per 1,000.

Particulars of the Infantile death-rate for the last 20 years are shown on the following graph. It will be seen that with the exception of an occasional case every 2nd or 3rd year there has been a steady fall, the lowest on record being reached in 1931.



Comparative statistics are:—

	England and Wales ...	...	...	65
118	Great Towns ...	...	...	69
126	Smaller Towns ...	...	...	58
	London ...	...	...	66

The highest infantile death-rates were:—

	Congleton Borough ...	...	106
	Dukinfield Borough ...	...	98
	Hazel Grove U.D. ...	...	93
	Bollington U.D. ...	...	92

It is necessary to point out that in districts with small populations a very slight increase or decrease in infantile (or other) deaths in any one year will shew a marked fluctuation in the rate of mortality.

The lowest infantile death-rates were:—

	Alderley Edge U.D. ...	...	Nil
	Handforth U.D. ...	...	Nil
	Hoole U.D. ...	...	Nil
	Tintwistle R.D. ...	...	Nil
	Hoylake U.D. ...	...	14
	Hale U.D. ...	...	24
	Bredbury U.D. ...	...	27

Tuberculosis.

The deaths recorded during 1932 under this heading are as under :—

	Urban Districts.	Rural Districts.	Total. Total.	Total 1931.
Tuberculosis of the Lungs ...	281	86	367	370
Other Tuberculous Diseases	68	25	93	68
	—	—	—	—
All Forms ...	349	111	460	438
	—	—	—	—

Total Deaths from Tuberculosis Disease:—

1921	...	...	...	527
1922	...	...	...	550
1923	...	...	...	488
1924	...	...	...	512
1925	...	...	...	510
1926	...	...	...	489
1927	...	...	...	488
1928	...	...	...	499
1929	...	...	...	465
1930	...	...	...	438
1931	...	...	...	438
1932	...	...	...	460

The principal causes of death are set out in the following table:—

Disease.					No. of Deaths.
Heart Disease	...	...	...	...	1770
Cancer	...	...	...	...	1102
Cerebral Hæmorrhage	...	...	...	...	462
Respiratory Diseases—					
Pneumonia	...	...	...	...	398
Bronchitis	...	...	...	...	295
Other Respiratory Diseases	...	...	...	...	55
Phthisis	...	...	...	...	367
Nephritis	...	...	...	...	332

As in previous years the chief cause of death is Heart Disease, a slight increase being noted in the number of deaths this year as compared with 1931.

Cancer which again comes next on the list also shows an increase, there being 1,102 deaths this year as compared with 1,041 last year.

It is gratifying to note however that deaths from respiratory diseases show a definite decline.

VITAL STATISTICS. 10 YEAR AVERAGES, 1922—31.

	Cheshire	Aggregate Counties England and Wales
Birth Rate	15.75	17.20
Death Rate	11.62	11.58
Maternal Mortality Rate—		
Sepsis	1.450	1.498
Other Causes	2.711	2.521
Total	4.161	4.019
Infant Mortality Rate	64.1	64.5
Deaths from Diarrhoea (under 2 years of age) for 1000 registered births	5.035	5.519
Deaths per million population from—		
Enteric Fever	11.5	10.7
Scarlet Fever	23.6	19.1
Diphtheria	65.4	74.2
Whooping Cough	81.4	97.2
Measles	83.8	90.0
Tuberculosis—(Respiratory)	570.8	722.1
Tuberculosis—Other forms	176.6	176.2
Other Respiratory Diseases*	1579.0	1606.1
Cancer	1355.7	1343.3
Cardiac Disease	1904.8	1832.2

* Excluding Influenza.

COUNTY OF CHESHIRE.
BIRTH AND DEATH RATES.

The Average Figures for Administrative Counties in England and Wales are shewn in brackets.

	1922	1923	1924	1925	1926	1927	1928	1929	1930	1931
Birth Rate per 1,000	..	18.0 (19.7)	17.4 (19.2)	16.6 (18.4)	16.0 (17.9)	15.8 (17.4)	15.2 (16.4)	15.0 (16.4)	14.6 (15.8)	14.2 (14.8)
Death Rate per 1,000	..	12.2.. (12.3)	11.2 (11.2)	11.8 (11.8)	11.9 (11.8)	11.3 (11.2)	11.5 (12.0)	11.3 (11.3)	12.7 (12.8)	11.1 (11.1)
Maternal Death Rate (per 1,000 births)										
(a) from Sepsis	..	0.61 (1.25)	1.36 (1.24)	1.31 (1.31)	2.12 (1.36)	1.65 (1.48)	0.99 (1.49)	1.61 (1.70)	2.14 (1.77)	1.72 (1.79)
(b) from other causes	..	2.90 (2.51)	3.16 (2.47)	2.81 (2.51)	2.70 (2.62)	1.94 (2.52)	2.48 (2.47)	3.61 (2.71)	2.65 (2.51)	2.68 (2.44)
(c) Total	..	3.51 (3.76)	4.52 (3.71)	4.12 (3.82)	4.82 (3.98)	3.59 (4.00)	3.47 (3.96)	5.22 (4.41)	4.79 (4.28)	4.40 (4.23)
Infant Mortality Rate per 1,000 registered live Births	67 (71)	65 (64)	70 (68)	73 (69)	70 (64)	61 (64)	58 (60)	65 (68)	57 (56)
Deaths from Diarrhoea (under 2 years of age) per 1,000 registered Births	4.83 (5.63)	5.51 (6.74)	5.52 (6.25)	6.18 (7.10)	6.19 (7.08)	4.86 (5.20)	5.02 (5.68)	4.80 (6.46)	4.21 (5.19)
										3.23 (4.87)

Causes of Death (Rate per Million).

	1922	1923	1924	1925	1926	1927	1928	1929	1930	1931
Enteric Fever (including Paratyphoid)	17 (13)	20 (13)	8 (14)	8 (10)	18 (10)	11 (10)	8 (12)	6 (10)	9 (8)	10 (7)
Scarlet Fever	54 (34)	14 (22)	22 (20)	33 (20)	28 (17)	15 (15)	21 (14)	33 (17)	9 (18)	7 (14)
Diphtheria	77 (116)	38 (69)	44 (63)	53 (66)	76 (69)	48 (61)	50 (76)	96 (81)	96 (83)	72 (58)
Whooping Cough	119 (159)	94 (96)	44 (88)	138 (136)	83 (96)	71 (89)	62 (62)	109 (150)	49 (44)	55 (52)
Measles	171 (123)	57 (116)	187 (109)	51 (101)	89 (84)	59 (57)	74 (110)	30 (49)	108 (95)	12 (55)
Tuberculosis of Respiratory System	660 (816)	541 (764)	563 (771)	638 (750)	561 (691)	547 (715)	572 (680)	535 (710)	513 (661)	546 (663)
Tuberculosis—other forms ..	209 (214)	226 (212)	233 (201)	152 (188)	186 (174)	189 (168)	177 (162)	160 (152)	134 (147)	100 (144)
Other Diseases of the Respiratory System	1943 (1943)	1873 (1614)	1761 (1845)	1776 (1737)	1511 (1512)	1517 (1729)	1261 (1314)	1786 (1781)	1154 (1154)	1208 (1332)
Cancer	1253 (1223)	1241 (1259)	1369 (1279)	1332 (1320)	1387 (1347)	1321 (1355)	1408 (1405)	1390 (1409)	1510 (1433)	1534 (1401)
Heart Disease	1634 (1294)	1497 (1490)	1651 (1575)	1733 (1645)	1593 (1630)	1789 (1808)	1985 (1909)	2367 (2323)	2290 (2202)	2509 (2348)

Section III.-Infectious Diseases.

Isolation Hospitals.

Under Section 63 of the Local Government Act, 1929, it became compulsory for every County to make a survey of the Isolation Hospital accommodation for the treatment of infectious disease.

The scheme for the treatment of infectious diseases within the County submitted to and agreed upon by the Committee, the essential points of which were set out on page 26 of last years report, is at present in abeyance owing to the necessity for economy at the present time, and the fact that complete agreement has not been reached with the Local Authorities. Although the scheme would eventually be a considerable economy over the present method of treatment of infectious diseases some capital expenditure would be necessary at the outset.

The various Isolation Hospitals in the County and their accommodation are shown in the following table:—

--

Ambulances.

All cases of infectious disease are dealt with by the ambulances attached to the various Isolation Hospitals, and the various Sanatoria.

The ambulance provision for ordinary sickness and accidents has recently been reviewed and appears adequate.

Apart from infectious cases the following are the arrangements in force in the County:—

Congleton Borough	Two motor ambulances.
Crewe Borough	Three motor ambulances.
Dukinfield Borough	Make use of Hyde Police Ambulance.
Hyde Borough	Two motor ambulances.
Macclesfield Borough	Two motor ambulances (one belonging to the Red Cross Society).
Stalybridge Borough	One motor ambulance.
Alderley Edge Urban	One Motor ambulance—Red Cross Society.
Alsager Urban	Have arrangement with Stoke and Newcastle for use of their ambulances.
Altrincham Urban	Two motor ambulances.
Bebington Urban	One motor ambulance attached Port Sunlight Hospital.
Bollington Urban	Have arrangement with Macclesfield Corporation.
Bowdon Urban	One motor ambulance; jointly with Hale.
Bredbury Urban	Arrangement with Hyde Corporation.
Buglawton Urban	Arrangement for use of Congleton ambulance.
Cheadle Urban	St. John's Brigade Ambulance.
Compstall Urban	Make use of Hyde and Stockport ambulances.
Ellesmere Port Urban	Two motor ambulances.
Handforth Urban	Arrangement with Wilmslow.
Hazel Grove Urban	Arrangement with Stockport Corporation.
Hollingworth Urban	Arrangement with Glossop and Hyde.
Hoole Urban	Make use of ambulances from Chest Infirmary and the Chester Fire Brigade.
Hoylake Urban	One motor ambulance.
Knutsford Urban	Agreement with Altrincham.
Lymm Urban	Agreement with Altrincham.
Marple Urban	Arrangement with Stockport.
Middlewich Urban	The Winsford St. John's Motor Ambulance.

Authority.	Hospital.	Situation.	Districts Served.	Population Served.	Accommodation.			Average Daily No. of Patients
					Blocks.	Wards.	Beds.	
Altrincham U.D.C.	Altrincham	Sinderland Road, Altrincham	Altrincham U.D. Bowdon U.D.	23428	4	8	34	21
Congleton and District J.H.B.	West Heath Sanatorium	West Heath, Congleton	Congleton Borough Congleton R.D. Alsager U.D. Buglawton U.D. Sandbach U.D.	43025	4	11	34	20
Crewe T.C.	Crewe	North of Crewe	Crewe Borough	47850	4	12	40	18
Hyde T.C.	Hyde	Black Bower Lane, Hyde	Hyde Borough Audenshaw U.D. Bredbury and Romiley U.D. Compstall U.D. Denton U.D. Disley R.D. Dukinfield Borough Hazel Grove and Bramhall U.D. Marple U.D. Stalybridge Borough Yeardsley-cum-Whaley U.D.	139703	6	8 large 18 single	85	23
Macclesfield T.C.	Macclesfield D.	Moss Lane, Macclesfield	Macclesfield M.B. Macclesfield R.D. Bollington U.D.	55000	2	8	36	14
Nantwich J.H.B.	Alvaston	Alvaston, near Nantwich	Nantwich U.D. Nantwich R.D.	33200	3	6	20	36
Northwich R. Northwich U. Middlewich and Winsford	Davenham	Davenham, near Northwich	Northwich R.D. Northwich U.D. Middlewich U.D. Winsford U.D.	58739	4	12	35	29
Runcorn U.D.C.	Runcorn U.D.C.	Weston Road, Runcorn	Runcorn U.D.	18570	2	4	20	18
Runcorn R.D.C.	Runcorn R.D.	Parish of Dutton	Runcorn R.D.	30940	3	9	28	—
Wirral J.H.B.	Clatterbridge J.H.	Clatterbridge	Bebington and Bromborough U.D. Ellesmere Port and Whitby U.D. Hoylake and West Kirby U.D. Neston and Parkgate U.D. Wirral R.D.	93412	6	15	68	39

Smallpox Hospitals.

There are at the moment 7 smallpox hospitals in the County.

Authority.	Situation.	Districts Served.	Population Served.	Accommodation.		
				Ward Blocks.	Wards.	Beds.
Congleton and District S.P.H.C.	Arcld, Sandbach	Alsager U.D. Buglawton U.D. Congleton B. Congleton R.D. Sandbach U.D.	35000	2	2	12
Macclesfield	Moss Lane, Macclesfield	Macclesfield B. Bollington U.D.	37885	1	2	6
Nantwich	Ravensmoor	Nantwich U.D. Nantwich R.D.	33191	1	2	6
Northwich R. & U. Middlewich and Winsford U.H.C.	Marbury	Northwich R.D. Northwich U.D. Middlewich U.D. Winsford U.D.	53739	3	9	15
Tarvin, Mapas and Tarporley	Tiverton	Tarvin R.D. Mapas R.D. Tarporley U.D.	20373	1	1	2
Mottram, Hollingworth and Tintwistle J.C.	Carrhouse Lane	Mottram U.D. Hollingworth U.D. Tintwistle R.D.	6879	1	2	6
Hyde T.C.	Old Road, Hyde	Hyde Dukinfield Bredbury and Romiley Disley R.D. Hazel Grove Bramhall U.D. Macclesfield R.D. Marple U.D. Yeardsley-cum-Whaley Droylsden U.D. Denton U.D.	226358	2	6	30

Mottram Urban	Use Stalybridge and Hyde Police Ambulances.
Nantwich Urban	Maintain a Red Cross Ambulance jointly with Rural area.
Neston Urban	Have no ambulance.
Northwich Urban	Police hand ambulance. Imperial Chemical Co. provide their own. Use is made of a private motor ambulance.
Runcorn Urban	Council subsidise a private firm for the use of a modern motor ambulance.
Sale Urban	Two motor ambulances.
Sandbach Urban	An annual sum is paid for the use of a St. John's Brigade motor Ambulance.
Tarporley Urban	Chester Infirmary Ambulance used when necessary.
Wilmslow Urban	One motor ambulance.
Yeardsley-cum-Whaley Urban	Subscribe annually for use of New Mills Red Cross Ambulance.
Bucklow Rural	Have no ambulance, but consider the area well served.
Chester Rural	Make use of Chester ambulances.
Congleton Rural	Make use of Sandbach ambulances.
Disley Rural	Has services of Stockport ambulance.
Macclesfield Rural	No ambulance, but are negotiating for use of that owned by Macclesfield Borough.
Malpas Rural	No ambulance.
Nantwich Rural	Joint use of an ambulance with Nantwich Urban District.
Northwich Rural	Make use of the ambulances, from Northwich and Winsford.
Runcorn Rural	One motor ambulance.
Tarvin Rural	Make use of Chester City Ambulances.
Tintwistle Rural	Utilise the Hyde ambulance.
Wirral Rural	Have agreements with Birkenhead Corporation and Messrs. Lever Bros. for the use of ambulances.

Section IV.-Venereal Diseases.

The following statistics are drawn up from the returns supplied by the treatment centres used by County patients:—

Institution.	Persons attending for first time at Out-Patient Clinic suffering from				Total attendances at Out-Patient Clinic.	Number of In-Patient Days.	Doses of Salvarsan substitute
	Syphilis.	Soft Chancre	Gonorrhoea.	Non-Veneral conditions.			
Ashton-under-Lyne Infirmary ...	34	—	33	26	2935	70	4244
Birkenhead Infirmary ...	—	1	13	11	712	—	755
Chester Royal Infirmary	16	—	42	9	2605	203	3933
Liverpool Seamen's Dispensary ...	1	—	12	3	394	—	11
Liverpool Royal Infirmary ...	4	—	15	3	634	—	655
Liverpool Northern Hospital ...	3	—	1	1	151	—	955
Liverpool Royal Southern Ancoats Hospital, Manchester ...	—	—	1	1	394	—	22
Manchester Skin Hospital	11	—	9	10	464	—	544
St. Luke's, Manchester	20	—	3	11	597	146	1477
Manchester Royal Infirmary ...	10	2	28	10	719	277	755
St. Mary's, Manchester	36	—	25	14	1376	—	3188
Salford Boro' Hospital ...	5	—	10	16	392	—	511
Stockport Clinic ...	11	1	18	38	3313	51	2533
South Shields ...	16	—	20	4	1073	—	1491
Stoke-on-Trent Clinic ...	1	—	—	—	1	—	—
Preston Hospital, Tynemouth ...	2	—	4	7	514	—	511
Warrington Infirmary ...	—	—	1	—	5	—	—
Wrexham ...	5	—	13	2	1092	12	766
Wrexham ...	—	—	1	—	2	—	—
TOTALS ...	175	4	249	166	17373	759	22299

There is no clinic conducted entirely by the County Council.

In 1929, 1930 and 1931, the percentages of Cheshire residents, who attended V.D. centres, attended centres in various towns as follows:—

NEW CASES.						
		1929.		1930.		1931.
		%		%		%
Chester C. B.	...	11	...	12	...	12
Stockport C. B.	...	6	...	8	...	6
Birkenhead C. B.	...	5	...	2	...	6
Wallasey C. B.	...	0	...	0	...	0
<hr/>						
Total for County Boroughs		22	...	22	...	24
<hr/>						
Manchester C. B.	...	46	...	33	...	33
Ashton-under-Lyne	...	13	...	17	...	14
Salford C. B.	...	9	..	12	...	12
Liverpool C. B.	...	4	...	7	...	7
Stoke-on-Trent C. B.	...	4	...	4	...	6
Warrington	...	3	...	4	...	4
Other Areas	..	0	...	1	...	1

Examination of Specimens for Private Practitioners.

The following have been examined at the Manchester Public Health Laboratory.

		SYPHILIS.				GONORRHŒA.			Total Number of Speci- mens.
		Wassermann Reaction.				Gonococcus.			
		Total Exam.	+	Doubt ful.	Not Exam.	Total Exam.	+	Not Exam.	
1st Quarter	...	55	7	1	—	4	—	—	59
2nd	„	42	15	—	—	7	1	—	—
3rd	„	42	8	1	—	11	3	—	53
4th	„	57	16	3	1	1	—	—	58
Total	...	196	46	5	1	23	4	—	170

Section V.-Tuberculosis.

The scheme for the prevention and treatment of Tuberculosis in the County was formulated in 1914 and was based upon the recommendation of the Astor Departmental Committee.

Since that date great advances have been made in methods of diagnosis and treatment and it is obvious that as is stated in the report of the Joint Tuberculosis Council, the recommendations of the Astor Report require additions and amendment.

Special attention is drawn to—

- (1) The highly specialised nature of the Tuberculosis Service.
- (2) The importance of large administrative units, especially Dispensary units.
- (3) Provision of Hospital beds for Tuberculosis Officers or the combination of Dispensary and Institutional work by one Officer.

No alterations have been made in the scheme during the year under review, but a scheme for the re-organisation of the Tuberculosis service was submitted and the policy for future developments decided upon by the Committee.

The chief points in the re-organisation will be as follows:

- (1) The County to be divided into three Dispensary Areas as at present.
- (2) Each Tuberculosis Officer to have in his Area a small Unit where observation cases and advanced cases can be sent thus giving more accommodation in the Sanatorium for early cases.
- (3) Each Tuberculosis Officer to have one Central Dispensary in the most populous district of his area, fully equipped for modern methods of diagnosis and treatment; *i.e.*, installation of X-Ray Plant and accommodation for carrying out Artificial Pneumothorax Refills.
- (4) Reduction in the number of Dispensary units from 13 to 8, thus ensuring larger attendances at the Central Dispensaries and freeing the Tuberculosis Officers on certain days for Domiciliary Visiting when patients unable to attend Dispensaries can be visited in their homes.

The areas in which Dispensaries have been opened by the Council and the days and times upon which the District Tuberculosis Officers attend are detailed in the following table:—

1. CHESTER AND CREWE DISTRICT.

DR. D. W. TOUGH.

Address of Dispensary.	Days.	Sessions held on	
		Hours.	
Ashton House, Gatefield	...Monday	10 0 a.m. to 1	0 p.m.
Street, Crewe	Wednesday	5 30 p.m. to 8	0 p.m.
15, St John Street, Chester	...Wednesday	10 0 a.m. to 12	noon.
52, Victoria Road, Ellesmere	...Thursday	2 30 p.m. to 5	0 p.m.
Port			
Duncan Street, Birkenhead	...Friday	2 0 p.m. to 4	0 p.m.
The Lodge, Darmond's Green,...	Tuesday	2 0 p.m. to 4	0 p.m.
West Kirby			

2. HYDE DISTRICT.

DR. L. I. HENZELL.

Beeley Street, Hyde	...Monday	10 0 a.m. to 12	noon.
	Wednesday	2 0 p.m. to 4	30 p.m.
		6 0 p.m. to 7	30 p.m.
Throstle Grove House, Great	...Monday	3 0 p.m. to 5	0 p.m.
Egerton Street, Stockport			
Chapel Street, Congleton	...Friday	2 30 p.m. to 5	0 p.m.
Pear Tree House, Jordangate,...	Friday	10 0 a.m. to 12	noon.
Macclesfield			

3. NORTHWICH AND ALTRINCHAM DISTRICT.

DR. J. HAGUE.

Address of Dispensary.	Days.	Sessions held on	
		Hours.	
12, Dunham Road, Altrincham...	Tuesday	10 0 a.m. to 12	noon.
	Wednesday	10 0 a.m. to 12	noon.
	Friday	6 0 p.m. to 7	45 p.m.
London Road, Northwich	...Friday	10 0 a.m. to 12	noon.
28, High Street, Runcorn	...Thursday	11 0 a.m. to 12	30 p.m.
Albert Infirmary, Winsford	...Monday	5 30 p.m. to 7	0 p.m.

The tables included in this Report give in considerable detail an account of the work accomplished during the year 1932, and for the purposes of comparison I have separated the outstanding figures for the year under review and the two previous years.

		New Cases (primary) notified during 1932	Corresponding figures for	
			1931	1930
Pulmonary	...	481	524	543
Non-pulmonary	...	270	278	298
Total	...	751	802	841

No of cases remaining on
Registers of Notifications
kept by District M.O's.H.,
December 31st, 1932 ...

5605 6097 6021

		Corresponding figures for	
		1931	1930
No. of Deaths from all forms of Tuberculosis during 1932	460	438	438
Death-rate from all forms of Tuberculosis per 1,000 of the population, 1932	0·67	0·64	0·64
New Applicants for Treatment during 1932 ...	423	416	453
No. of Attendances at Dispen- saries, 1932 ...	5306	5645	5803
Specimens examined at County Laboratory, 1932 ...	3074	2718	2337
No. of Consultations with Medical Practitioners, 1932	2532	1460	1454
Visits of T.O's. to Homes ...	998	907	511
Visits of Health Visitors to Homes for Dispensary purposes ...	5762	4881	5033
X-Ray Examinations, 1932 ...	131	93	58

In my Report of last year I drew particular attention to the necessity for domiciliary visiting and am pleased to report a further increase during 1932, in the number of such visits paid.

1929	...	...	...	511.
1930	...	...	...	535
1931	...	...	...	907
1932	...	...	...	998

Return showing the work of the Dispensaries during the year 1932.

Summary of Notifications during the period from the 3rd Jan., 1932, to the 31st December, 1932.

Age-Periods ...	Formal Notifications.												Total Notifications.
	Number of Primary Notifications of new cases of tuberculosis.												
	0—	1—	5—	10—	15—	20—	25—	35—	45—	55—	65—	Total (all ages)	
Pulmonary Males	1	3	8	5	15	32	68	55	48	16	13	264	275
„ Females... ..	2	2	5	14	22	42	62	34	18	8	8	217	222
Non-Pulmonary Males ...	5	30	28	31	5	7	10	5	5	3	1	130	133
„ „ Females ...	1	26	28	21	9	9	18	14	10	1	3	140	143

SUPPLEMENTAL RETURN.

New cases of Tuberculosis coming to the knowledge of the Medical Officer of Health or Chief (Administrative) Tuberculosis Officer during the period from the 3rd January, 1932, to the 31st December, 1932, **otherwise** than by formal notification.

Age-periods ...	0—	1—	5—	10—	15—	20—	25—	35—	45—	55—	65—	Total.
Pulmonary Males ...	2	—	—	—	1	3	10	19	6	7	1	49
„ Females ...	—	1	—	1	2	7	11	6	6	7	2	43
Non-pulmonary Males ...	1	4	2	—	—	—	2	—	1	—	—	10
„ Females ...	—	5	1	4	2	1	2	2	—	2	1	20

The source or sources from which information as to the above-mentioned cases was obtained are stated below :—

Source of Information.

	No. of Cases.	
	Pulmonary.	Non-pulmonary.
Death Returns (<i>i.e.</i> , from local Registrars, or transferable deaths from Registrar General)	26	11
Posthumous Notifications	12	8
“Transfers” from other areas (other than transferable deaths)	54	11

NOTIFICATION REGISTER.

	Pulmonary.			Non-pulmonary.			Total Cases.
	Males.	Females.	Total.	Males.	Females.	Total.	
Number of Cases of Tuberculosis remaining at the 31st December, 1932.	1697	1521	3218	1203	1184	2387	5605
Number of Cases removed from the Register during the year.							
Withdrawal of Notification ...	31	46	77	17	11	28	105
Recovery from the Disease ...	234	197	431	221	171	392	823
Death ...	197	160	357	36	29	65	422

Diagnosis.	Pulmonary.				Non-pulmonary.				Total.				Grand Total.
	Adults.		Children		Adults.		Children		Adults.		Children		
	M.	F.	M.	F.	M.	F.	M.	F.	M.	F.	M.	F.	
A—New Cases examined during the year (excluding contacts):													
(a) Definitely tuberculous ...	232	151	8	16	31	41	47	65	263	192	55	81	591
(b) Diagnosis not completed	—	—	—	—	—	—	—	—	17	17	5	7	46
(c) Non-tuberculous ...	—	—	—	—	—	—	—	—	161	145	104	78	488
B—Contacts examined during the year:													
(a) Definitely tuberculous ...	8	12	3	9	—	—	7	5	8	12	10	14	44
(b) Diagnosis not completed	—	—	—	—	—	—	—	—	2	7	3	1	13
(c) Non-tuberculous ...	—	—	—	—	—	—	—	—	55	132	197	180	564
C—Cases written off the Dis- pensary Register as:													
(a) Recovered	9	12	9	11	6	5	30	22	15	17	39	33	104
(b) Non-tuberculous (includ- ing any such cases pre- viously diagnosed and entered on the Dispensary Register as tuberculous)	—	—	—	—	—	—	—	—	227	298	314	268	1107
D—Number of Cases on Dis- pensary Register on Decem- ber 31st:													
(a) Definitely tuberculous ...	780	627	115	112	213	276	439	311	993	903	554	423	2873
(b) Diagnosis not completed	—	—	—	—	—	—	—	—	19	24	8	8	59

1. Number of cases on Dispensary Register on January 1st, 1932 ... 2,870
2. Number of cases transferred from other areas and cases returned after discharge under Head 3 in previous years ... 56
3. Number of cases transferred to other areas, cases not desiring further assistance under the scheme, and cases "lost sight of" ... 121
4. Cases written off during the year as Dead (all causes) ... 408
5. Number of attendances at the Dispensary (including Contacts) ... 5,306
6. Number of Insured Persons under Domiciliary Treatment on the 31st December ... 1,269
7. Number of consultations with medical practitioners:—
 - (a) Personal ... 451
 - (b) Other ... 1,081
8. Number of visits by Tuberculosis Officers to homes (including personal consultations) ... 998
9. Number of visits by Nurses or Health Visitors to homes for Dispensary purposes 5,762

10. Number of:—

(a) Specimens of sputum, etc., examined *1,570

(b) X-Ray examinations made 131

in connexion with Dispensary work.

11. Number of "Recovered" cases restored to Dispensary Register, and included in A (a) and A (b) above 3

12. Number of "T.B. plus" cases on Dispensary Register on December 31st 1,008

Number of Dispensaries for the treatment of Tuberculosis (excluding centres used only for special forms of treatment).

Provided by the Council—13.

Provided by Voluntary Bodies—Nil.

* In addition 1,039 specimens were received from private practitioners for examination for Tubercle Bacilli.

Number of beds available for the treatment of Tuberculosis on the 31st December in Institutions belonging to the Council.

Name of Institution.	For Pulmonary Cases.		For Non-pulmonary Cases.		Total.
	Adults.	Children under 15.	Adults.	Children under 15.	
<i>Sanatoria.</i>					
Cheshire Joint Sanatorium, Market Drayton ...	120	—	—	—	120
Wrenbury Hall Colony, nr. Nantwich, Cheshire ...	50	—	—	—	50
<i>Poor Law Institutions.</i>					
*Clatterbridge Institution, Wirral ...	8	—	4	—	12
Knutsford (Bucklow Institution) ...	4	—	4	—	8
†Macclesfield Institution ...	11	—	—	—	11
§Nantwich Institution ...	8 (for male adults).				

* No beds are set apart for the treatment of Tuberculosis, but in the Annexe, isolation space is provided in which Tuberculosis male patients, four in number, can be treated. On the verandah of the Annexe beds can be placed for four patients who are undergoing complete open air treatment. In the female infirmary there is space on the balcony for four patients.

† { One pavilion of five beds for adult males.

{ Six separate shelters with one bed each for either adults or children.

§ No beds reserved for adult females, or children of either sex, for the treatment of Tuberculosis, Pulmonary or Non-pulmonary.

Return showing the extent of Residential Treatment and Observation during the year in Institutions (other than Poor Law Institutions) approved for treatment of Tuberculosis.

	In Institu- tions on Jan. 1st	Admitted during the year	Discharged during the year	Died in the Institu- tions	In Institu- tions on Dec. 31st
Number of doubt- fully tuberculous cases admitted for observation—					
Adult males ...	1	12	10	—	3
Adult females	1	10	9	*1	1
Children ...	1	7	7	—	1
Total ...	3	29	26	1	5
Number of definite- ly tuberculous patients admitted for treatment—					
Adult males ...	144	271	222	45	148
Adult females	96	197	169	31	93
Children ...	98	132	134	9	87
Total ...	338	600	525	85	328
Grand Total ...	341	629	551	86	333

* Died from Malignant Endocarditis.

Return showing the extent of Residential Treatment provided during the year in Poor Law Institutions for persons chargeable to the Council.

	In Institu- tions on Jan. 1st	Admitted during the year	Discharged during the year	Died in the Institu- tions	In Institu- tions on Dec. 31st
Number of patients suffering from pulmonary tuber- culosis admitted for treatment—					
Adult males ...	6	38	14	19	11
Adult females	6	17	14	5	4
Children ...	2	9	3	4	4
Total ...	14	64	31	28	19
Number of patients suffering from non- pulmonary tuber- culosis admitted for treatment—					
Adult males ...	3	4	2	1	4
Adult females	2	1	2	—	1
Children ...	—	5	4	—	1
Total ...	5	10	8	1	6
Grand Total ...	19	74	39	29	25

Return showing the results of observation of doubtfully tuberculous cases discharged during the year from Institutions approved for the treatment of Tuberculosis.

Diagnosis on discharge from observation.	For Pulmonary Tuberculosis.			For Non-pulmonary Tuberculosis.			Totals.
	Stay under 4 weeks.			Stay under 4 weeks.			
	M. F. Ch.	M. F. Ch.	M. F. Ch.	M. F. Ch.	M. F. Ch.		
Tuberculous ...	— — —	3 1 —	— 1 —	— 1 1	3 3 1		
Non-tuberculous	3 1 —	1 2 —	1 2 2	1 1 1	6 6 3		
Doubtful ...	— — —	1 1 —	— — —	— — 3	1 1 3		
Totals ...	3 1 —	5 4 —	1 3 2	1 2 5	10 10 7		

Return showing the immediate results of treatment of definitely tuberculous patients discharged during the year from Institutions approved for the treatment of Tuberculosis.

[illegible]

The following table shows the number of Insured (including Discharged Soldiers and Sailors) and Uninsured persons who have received treatment during the years 1919-1932.

YEAR.	INSURED.		UNINSURED.		TOTAL.
	Males.	Females.	Males.	Females.	
1919	300	72	62	92	526
1920	371	82	90	104	647
1921	299	73	96	125	593
1922	292	96	105	102	594
1923	300	118	112	136	666
1924	321	136	154	163	774
1925	325	123	147	129	724
1926	336	156	158	217	867
1927	412	134	169	188	903
1928	416	158	194	203	971
1929	444	175	242	303	1164
1930	438	184	241	318	1181
1931	401	202	258	316	1177
1932	376	216	250	297	1139

Number of new applications for treatment under the County Tuberculosis Scheme during the years 1926-1932.

YEAR.	DIS- CHARGED SOLDIERS.	INSURED.	UNINSURED.	TOTAL.
1926	—	238	198	436
1927	—	234	216	450
1928	1	228	233	462
1929	1	241	205	447
1930	2	238	213	453
1931	—	224	192	416
1932	1	242	180	423
Totals.	5	1645	1437	3087

Table relating to Tuberculosis in children:—

Year.	Number of Children notified as suffering from Pulmonary Tuberculosis.	Number of Children notified as suffering from Non-Pulmonary Tuberculosis.	Per % of Total Notifications.	
			Pulmonary.	Non-Pulmonary.
1926	51	230	8.472	68.657
1927	46	224	8.303	62.57
1928	44	222	7.483	63.61
1929	47	207	7.556	63.303
1930	36	201	6.59	65.47
1931	33	185	6.3	66.55
1932	40	170	8.32	62.96

Number of beds occupied by Children in Institutions.
 1932—Pulmonary, 36; Non-Pulmonary, 202; Total, 238.

Statement showing number of Patient Days and average number of beds occupied during the period 1-1-32 to 31-12-32.

INSTITUTION.	Number of Patient Days.	Average number of Beds occupied.
SANATORIA.		
Cheshire Joint Sanatorium	43,616	
Wrenbury Hall Colony	11,378	
Eastby Sanatorium	3,749	
Liverpool Sanatorium	4,425	
	63,168	173
PULMONARY HOSPITALS.		
Hyde Pavilion	11,507	
Sealand Pavilion	1,637	
Baguley Sanatorium	1,786	
Crewe Pavilion	224	
Mount Pleasant Hospital	6,686	
Hefferston Grange Sanatorium	7,279	
	29,119	79½
GENERAL HOSPITALS.		
Congleton War Memorial Hospital	26	
Albert Infirmary, Winsford	45	
Ashton-under-Lyne Infirmary	881	
Macclesfield General Infirmary	843	
Manchester Royal Infirmary	346	
Chester Royal Infirmary	248	
Runcorn Cottage Hospital	277	
Altrincham General Hospital... ..	85	
Royal Southern Hospital, Liverpool	68	
Royal Liverpool Children's Hospital, Myrtle Street	168	
Royal Liverpool Children's Hospital, Thingwall	22	
Warrington Infirmary	48	
	3,057	8
ORTHOPÆDIC INSTITUTIONS.		
Leasowe Hospital for Children	12,574	
Royal Liverpool Children's Hospital, Heswall	6,468	
Shropshire Orthopædic Hospital	7,952	
North Staffs Cripples Aid Society	262	
	27,256	74½
CONVALESCENT HOMES.		
Royal Alexandra Hospital, Rhyl	3,526	
West Kirby Convalescent Home	1,693	
	5,219	14
SKIN HOSPITALS.		
Manchester & Salford Skin Hospital	675	
	675	2
TOTAL ALL INSTITUTIONS ...	128,494	351

The following Statement indicates the Institutions to which patients have been admitted from the Administrative County of Chester, during the year ending 31st December, 1932, and also numbers of Insured and Uninsured persons respectively treated in each Institution, together with a Statement of the average duration of periods of residence.

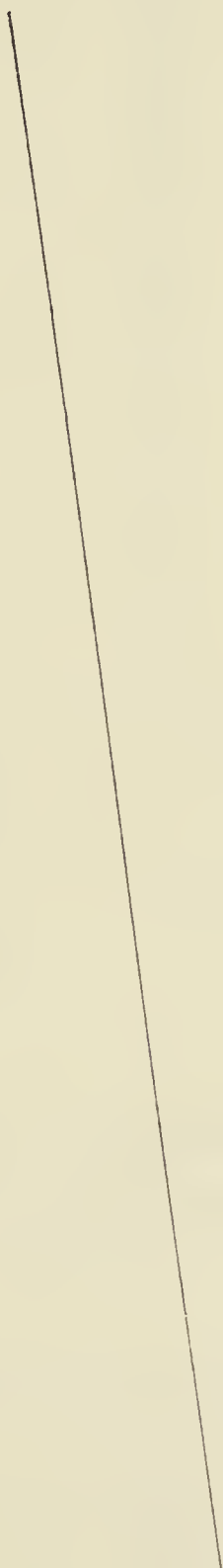


Table showing the actual number of Deaths from Tuberculosis during the past nineteen years :—

Year.	Pulmonary.		Non-Pulmonary.		Total. All forms.
1914	...	445	...	210	655
1915	...	469	...	208	677
1916	...	510	...	167	677
1917	...	494	...	177	671
1918	...	548	...	196	744
1919	...	452	...	140	592
1920	...	454	...	124	578
1921	...	388	...	139	527
1922	...	418	...	132	550
1923	...	344	...	144	488
1924	...	362	...	150	512
1925	...	412	...	98	510
1926	...	367	...	122	489
1927	...	363	...	125	488
1928	...	381	...	118	499
1929	...	358	...	107	465
1930	...	347	...	91	438
1931	...	370	...	68	438
1932	...	367	...	93	460

The 1932 figures are made up as follows:—

		Male.		Female.		Total.
Pulmonary	...	211	...	156	...	367
Non-Pulmonary		54	...	39	...	93
		<hr/>		<hr/>		<hr/>
		265		195		460
		<hr/>		<hr/>		<hr/>

Death Rates, 1932.

All forms of Tuberculosis, .67 per 1,000 of population.

Pulmonary Tuberculosis .53 per 1,000 of population.

Non-Pulmonary Tuberculosis, .13 per 1,000 of population.

The figures for the five preceding years are as under:—

Year.	Pulmonary.		Non-Pulmonary.		All Forms.
1927	...	0.55	...	0.18	0.73
1928	...	0.57	...	0.17	0.74
1929	...	0.53	...	0.16	0.69
1930	...	0.51	...	0.13	0.64
1931	...	0.54	...	0.10	0.64

NAME OF INSTITUTION.	INSURED.					UNINSURED.					
	Males.	Females.	Total.	Average period in Residence.		Males.	Females.	Children under 16.	Total.	Average period in Residence.	
SANATORIA.											
Cheshire Joint Sanatorium, Market Drayton	143	95	238	Wks. 20	Dys. 3	25	50	—	75	Wks. 18	Dys. 1
Wrenbury Hall Colony, nr. Nantwich	52	—	52	29	2	3	—	—	3	33	1
Eastby Sanatorium, Skipton, Yorks.	—	—	—	—	—	—	—	17	17	31	4
Liverpool Sanatorium, Kingswood, Frodsham	4	3	7	19	—	—	6	22	28	17	6
	199	98	297			28	56	39	123		
PULMONARY HOSPITALS.											
Hyde Pavilion, Hyde	70	—	70	18	3	12	—	1	13	26	6
Sealand Pavilion, near Chester	3	2	5	20	6	1	5	—	6	21	4
Baguley Sanatorium, Timperley	8	3	11	21	5	1	3	—	4	4	2
Crewe Pavilion, Crewe	5	—	5	6	3	—	—	—	—	—	—
Mount Pleasant Hospital, Liverpool	21	16	37	20	4	2	12	—	14	13	6
Hefferston Grange San., Weaverham	20	32	52	15	3	6	20	—	26	12	3
	127	53	180			22	40	1	63		
GENERAL HOSPITALS.											
War Memorial Hospital, Congleton	1	—	1	—	3	—	—	1	1	3	2
Albert Infirmary, Winsford	1	—	1	—	5	—	—	2	2	2	6
District Infirmary, Ashton-u-Lyne	2	5	7	9	3	—	1	2	3	20	—
General Infirmary, Macclesfield	1	2	3	2	5	—	—	8	8	14	—
Royal Infirmary, Manchester	4	3	7	3	6	3	6	1	10	2	2
Royal Infirmary, Chester	1	3	4	3	3	—	2	5	7	3	1
Cottage Hospital, Runcorn	—	—	—	—	—	—	—	7	7	5	5
Warrington Infirmary, Warrington	—	—	—	—	—	—	—	2	2	3	3
General Infirmary, Altrincham	1	1	2	2	3	—	—	2	2	3	5
Royal Southern Hospital, Liverpool	—	—	—	—	—	—	—	1	1	9	5
	11	14	25			3	9	31	43		
SPECIAL INSTITUTIONS FOR CHILDREN.											
Royal Liverpool Children's Hospital, Myrtle Street	—	—	—	—	—	—	—	6	6	4	—
Royal Liverpool Children's Hospital, Thingwall	—	—	—	—	—	—	—	1	1	3	1
Leasowe Hospital for Children, Leasowe	—	—	—	—	—	—	—	52	52	34	4
Heswall Institution, Heswall	—	—	—	—	—	—	—	57	57	16	2
	—	—	—			—	—	116	116		
ORTHOPAEDIC HOSPITALS.											
Shropshire Orthopaedic Hospital, Oswestry	18	10	28	16	2	16	7	23	46	14	6
North Staffs Cripples Aid Society, Hartshill	—	—	—	—	—	—	—	2	2	18	5
	18	10	28			16	7	25	48		
CONVALESCENT HOMES.											
Royal Alexandra Hospital, Rhyl	—	7	7	12	6	—	2	11	13	31	6
Children's Convalescent Home, West Kirby	—	—	—	—	—	—	—	10	10	24	1
	—	7	7			—	2	21	23		
SKIN HOSPITALS.											
Manchester and Salford Skin Hospital	2	1	3	12	3	2	7	5	14	4	1
	2	1	3			2	7	5	14		
TOTAL IN-PATIENTS	357	183	540			71	121	238	430		
OUT-PATIENTS AT VARIOUS CLINICS AND HOSPITALS											
TOTAL OUT-PATIENTS	19	33	52			8	31	78	117		
TOTAL ALL INSTITUTIONS	376	216	592			79	152	316	547		

TABLE SHOWING DEATHS FROM TUBERCULOSIS AT DIFFERENT PERIODS OF LIFE
IN THE ADMINISTRATIVE COUNTY OF CHESTER, DURING THE YEAR 1932.

		Aggregate of Urban Districts.													Aggregate of Rural Districts.												
Sex.	All Ages.	0—	1—	2—	5—	15—	25—	35—	45—	55—	65—	75—	All Ages.	0—	1—	2—	5—	15—	25—	35—	45—	55—	65—	75—			
{ Pulmonary Tuberculosis.	M	155	1	1	2	15	34	29	41	24	8	—	56	1	1	—	—	4	14	15	11	6	3	1			
	F	126	2	—	6	43	24	23	13	10	5	—	30	—	—	—	1	4	9	5	4	7	—	—			
{ Non-pulmonary Tuberculosis.	M	39	4	5	8	11	4	4	1	—	1	1	15	3	4	2	1	2	1	—	1	—	—	1			
	F	29	—	5	3	7	2	2	4	2	2	—	10	—	3	1	2	—	1	2	1	—	—	—			

Table showing number of specimens examined during 1932 in respect of patients resident in Institutions.

Sanatoria.	Neg.	Pos.
Wrenbury Hall, Wrenbury ...	304	19
Borough Hospital, Hyde, T.B. Pavilion	43	6

Other Institutions.

Clatterbridge Infirmary ...	38	1
Lake Hospital, Ashton-under-Lyne ...	24	
Macclesfield General Infirmary ...	4	—
Altrincham General Hospital ...	3	—
Bucklow Union Hospital, Knutsford ...	1	
Poor Law Institution, Arclid ...	1	—
The Hospital, Port Sunlight ...	2	
Albert Infirmary, Winsford ...	2	—
Tarvin Institution ...	1	—
Cottage Hospital, Neston ...	1	—
Cottage Hospital, Ellesmere Port ...	1	—
Cottage Hospital, Runcorn ...	2	—
Dutton Institution ...	2	

Other Districts.

Latchford ...	1	—
Manchester ...	1	—
Moreton ...	1	—

Total Number of Specimens Examined during 1932.

Sputa for T.B. Exams. (24.96% Pos.)	1945	6
Urines ...	9	
Pleuritic Fluid ...	5	
Pus ...	1	
Faeces ...	1	
Post Nasal Catarrh Swab ...	1	
Hair for Ringworm ...	18	
Milks (32.35% Pos.) ...	276	1
Sputa from Cows ...	2	
	<hr/> 2258	<hr/> 8

2258 Negatives. 816 Positives. Total Number Examined 3074.

Of the above specimens received from patients it was necessary to examine by concentration method:—385, which 359 were negative and 26 positive.

Total number of examinations made 3459.

Statement giving Particulars of Specimens Examined in County Public Health Laboratory during the Years 1920 to 1932 inclusive.

YEAR.	Sputums.		Urines.		Glands.		Pleural Effusions.		Blood.		Pus.		Urethral Discharge.		Hair for Ringworm.		Skin.		Feces for Worms.		Ulcer of Lip.		Fallopian Tubes.		Swab from Mouth.		Cerebro Spinal Fluid.		Tonsils for T.B.		Feces for T.B.		Total Number of Specimens from patients examined.	Milk.		Sputa from Cows.		Total Number of Specimens examined.	Concentration Method Patients' Sputa.		Total Number of Examinations made.
	Pos.	Neg.	Pos.	Neg.	Pos.	Neg.	Pos.	Neg.	Pos.	Neg.	Pos.	Neg.	Pos.	Neg.	Pos.	Neg.	Pos.	Neg.	Pos.	Neg.	Pos.	Neg.	Pos.	Neg.	Pos.	Neg.	Pos.	Neg.	Pos.	Neg.	Pos.	Neg.		Pos.	Neg.	Pos.	Neg.				
1920	292	1054	..	2	2	1	1	1352	..	1	1353	1353	
1921	459	1264	2	5	1	..	..	3	*1	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	1735	..	..	..	..	1735	..	..	1735
1922	511	1379	..	5	2	..	..	1	..	..	1	+1	..	..	3	4	..	1	..	..	..	..	..	..	..	..	..	..	..	..	1908	..	2	..	..	1910	..	..	1910
1923	604	1359	3	9	..	..	..	2	..	..	1	1	..	..	..	2	..	..	..	..	..	..	..	..	..	..	..	..	..	..	1981	..	3	..	..	1984	..	..	1984
1924	528	1548	1	2	1	3	..	2	..	..	1	..	..	..	2	12	..	..	..	1	..	..	..	..	..	..	..	..	..	..	2101	..	1	..	..	2102	..	..	2102
1925	516	1566	..	6	..	..	..	2	..	..	..	..	..	..	9	21	..	..	..	..	..	1	..	..	1	..	..	..	..	..	2122	..	1	..	..	2123	..	..	2123
1926	505	1451	..	4	..	..	..	1	..	..	2	..	..	..	8	8	..	..	..	..	..	..	..	..	..	..	..	..	..	..	1979	..	..	..	..	1979	..	..	1979
1927	415	1790	..	1	..	..	..	1	..	..	..	..	..	..	6	5	..	..	..	..	..	..	..	..	..	..	1	..	..	..	2219	..	..	..	..	2219	..	..	2219
1928	463	1790	..	6	2	1	4	7	6	2	..	1	1	2	2285	2285	2285	
1929	484	1717	..	4	..	..	..	1	..	..	1	1	..	..	7	5	..	..	..	..	..	..	..	..	..	..	1	..	..	..	2221	..	..	..	..	2221	..	..	2221
1930	560	1763	1	6	1	3	3	6	1	2	2346	2346	2346	
1931	664	1926	..	4	1	1	1	48	69	4	2718	2718	2718	
1932	647	1945	..	9	5	1	12	18	1	1	2639	132	276	25	2	3074	26	359	3459	

* Film appeared to be one of secondary Anæmia.

† Gonococci present.

Public Health Act, 1925.

No action was taken by the County Council under Section 62 of this Act, which permits the Council to apply for an Order to compulsorily remove a person suffering from Tuberculosis to Hospital.

Non-Pulmonary Tuberculosis.

The Orthopaedic work in relation to Non-Pulmonary cases of Tuberculosis has developed considerably since its inception in 1927. The scheme is now a most comprehensive one and the County is very well served by clinics. The most recent development being the decision of the Committee to establish a new clinic at Congleton which will be staffed from the Hartshill Orthopaedic Hospital at Stoke.

By the formation of these clinics it is intended first to shorten the long period of Institutional treatment so reducing expenditure and secondly, to make fuller use of existing hospital accommodation by releasing beds more rapidly for active treatment.

The surgeons who attend the clinics are on the staff of the Institutions to which the patients are sent for treatment so that patients on discharge will continue under the supervision of the surgeon who carried out the active treatment in hospital. The staff of each clinic also includes an Orthopaedic Sister, fully trained in Orthopaedic splint and plaster work and a Masseuse so that certain patients can be effectively treated as out-patients under the supervision of the Orthopaedic Surgeon.

The Institutions which are available for the treatment of these Orthopaedic Cases and the clinics connected with them are as follows:—

<i>Hospital.</i>	<i>Clinic.</i>
The Shropshire Orthopaedic Hospital, Oswestry	} Chester. Crews.
The Leasowe Hospital for Children and Royal Liverpool Hospital for Chil- dren, Heswall	} Ellesmere Port. Hoylake. New Ferry. Runcorn. Stockton Heath.
The Ancoats Hospital, Manchester	} Alderley Edge. Altrincham. Hyde.

During the year the number of attendances at the clinics was 2,625 and 133 patients received Institutional treatment.

The days and times at which the Orthopaedic Clinics are held are set out in the following table:—

CHESHIRE COUNTY COUNCIL.

PLACES, DAYS, AND TIMES OF ORTHOPÆDIC AFTER-CARE CLINICS.

Sessions held on

<i>Address.</i>	<i>Days.</i>	<i>Hours.</i>	<i>Surgeon attends.</i>
Cottage Hospital, Alderley Edge	... Alternate Thursdays	... 2 0 p.m. to 4 0 p.m.	... Once every two or three months.
General Hospital, Altrincham	... Fridays	... 2 0 p.m. to 4 0 p.m.	... Once monthly.
15, St. John Street, Chester ...	... Fridays	... 10 0 a.m. to 12 30 p.m.	... As arranged by Shropshire Orthopædic Hospital.
Old Railway Hotel, Crewe ...	... Tuesdays	... 10 0 a.m. to 12 30 p.m.	... Do.
Welfare Centre, Ellesmere Port	... Mondays	... 2 30 p.m.	... Fourth Monday each month.
Hoylake Welfare Centre, 8, Market Street	... Fridays	... 2 30 p.m.	... Third Friday each month.
Orthopædic After-Care Clinic, Hyde	... Mondays ... Wednesdays ... Fridays	... 10 0 a.m. to 5 30 p.m. ... 10 0 a.m. to 12 30 p.m. ... 10 0 a.m. to 5 30 p.m.	... Third Monday each month.
Welfare Centre, Recreation Ground, New Ferry	... Mondays	... 2 30 p.m.	... Second Monday each month.
Welfare Centre, 29, High Street, Runcorn	... Fridays	... 11 0 a.m.	... First Friday each month.
Welfare Centre, Methodist Sunday School, Stockton Heath	... Fridays	... 2 30 p.m.	... First Friday each month.

X-RAY EXAMINATIONS.

When Sir Robert Philip established the first Tuberculosis Dispensary in Edinburgh in 1887 it was with this object in view—that it should serve first and foremost as a Centre for the diagnosis of tuberculous disease, where the “earliest traces of infection could be sought for and registered.” To-day as in 1887 the Tuberculosis Dispensary as the central unit of the Tuberculosis Scheme is or should be concerned primarily with diagnosis—a Centre to which the Practitioner can with the utmost confidence send his patients for an expert opinion. The importance of accurate and timely diagnosis cannot be overestimated. Owing to the peculiar nature of the tuberculous process the diagnosis of early disease by ordinary clinical methods is often a matter of extreme difficulty, and the Tuberculosis Officer has to steer a *via media* between the Scylla of diagnosing “tuberculosis” which does not exist, or the Charybdis of failing to recognise existing active disease. If Tubercle Bacilli are found in the sputum the diagnosis, of course, is obvious, but it is not in these cases that difficulties in diagnosis arise. Of modern diagnostic methods in chest work, X-Ray examination stands pre-eminent, but although a good servant it may be a bad master. A diagnosis should never be made on an X-Ray examination alone. It is essential in all cases to take into consideration the patient’s history, and the Clinical and X-Ray examinations, before coming to a final decision.

I append below details regarding 206 X-Ray examinations made between 1928 and 1933. It is to be noted that these cases were specially selected from sputum negative cases for X-Ray examination as they presented extremely suspicious symptoms and signs, and the vast majority were definitely regarded as tuberculous by their family doctors.

TOTAL 206	{	197 PULMONARY (Sputum Negative)	{	108 Negative to X-ray. (1 Aneurism 2 Tumour).
		9 NON-PULMONARY	{	89 Positive to X-ray. (2 Pneumothorax-spontaneous). (3 Pleural Effusions).
				8 Negative. 1 Positive to X-ray.

It is noted that in none of the cases definitely regarded as non-tuberculous (i.e., 108 pulmonary, 8 non-pulmonary) has there been any reason with the lapse of time, to doubt the diagnosis made. Had not the X-Ray examinations been made it would have been necessary to have these doubtful cases admitted to an Institution for intensive observation in order to remove all doubt as to the presence of active disease.

The cost of maintaining these patients in Institutions for observation under the County Tuberculosis Scheme has thus been saved.

For example the 108 patients shown above to be negative to X-Ray would have cost the County Council approximately £1,080, i.e., 108 at £2 10s. per week for four weeks at least.

Moreover by removing the necessity of admitting these observation cases to Institutions it was possible to clear the way for the admission of definite cases of Tuberculosis urgently requiring attention, and thus commencing treatment at an earlier date, and bringing about the saving of a considerable number of lives.

In a Ministry of Health publication on Tuberculosis by Dr. McNalty, Senior Medical Officer for Tuberculosis, Ministry of Health, the value of X-Ray examination in Pulmonary Tuberculosis is summed up as follows:—

(1) Differential or early diagnosis.

As regards differential diagnosis X-Ray examination, for example will clear up the diagnosis between pulmonary tuberculosis and a tumour of the lung or mediastinum, or between pulmonary tuberculosis and bronchiectasis.

Concerning early diagnosis X-Ray examination will not show the earliest changes due to tuberculosis of the lungs, but it may often reveal disease before the appearance of physical signs.

(2) It assists in forming an opinion as to the extent and type of disease, and consequently guides appropriate treatment.

For example, before thoracoplasty is performed it is essential to know there is no active disease in the better lung, and also that the patient has powers of resistance, as evidenced by the presence of fibrosis (Burrell).

(3) It is practically indispensable in controlling artificial pneumothorax treatment and in judging the results of thoracic surgery, e.g., thoracoplasty and phrenic evulsion.

Section VI.-Maternity and Child Welfare.

(By DR. JEAN R. SHAW).

Number of Midwives in Practice.

There were 363 midwives who notified their intention to practise in the County Area during 1932. Classified these are as follows:—

Actually practising	...	...	...	...	257
Trained, 237; Untrained, 20.					
Monthly Nurses	...	...	...	...	17
Midwives living outside the County Area	...	...	...	...	24
In Institutions	...	...	...	...	24
Had no cases	...	...	...	...	37
Died	...	...	...	...	4

Each year the number of untrained women practising has gradually decreased. There are still a few bona fide midwives who attend some patients, and are unable to take temperatures or pulses. They are encouraged not to take cases without a doctor being in attendance.

The County Nursing Association continues to extend its activities and there are now no rural areas that have not their Nurse Midwife within a reasonable distance. The midwives belonging to this Association have been inspected twice yearly as in previous years. The standard of midwifery is very good and the nurses show great interest in their work as shown by the questions referred to the Inspector on the occasion of her visits.

Subsidised Midwives.

The County has 4 subsidised midwives working at Lymm, Tarvin, Hollingworth and Sandbach respectively. The above midwives with one exception are granted £60 per annum and allowed to keep their own fees. At Sandbach the midwife, who until very recently was the only trained midwife in that Urban District is allowed an extra grant as she had so few cases.

Compensation to Midwives.

Twenty-nine midwives were compensated during the year for loss of fees owing to poverty or patient being removed to hospital for confinement.

Inspection of Midwives.

The inspection of midwives has been carried out as in previous years by the Lady Assistant Medical Officer, assisted by some of the Health Visitors. All trained midwives are inspected by the Lady Assistant Medical Officer.

Total visits to midwives	...	...	...	1034
Formal inspections	...	...	...	871
Inquiries into Stillbirths, Puerperal Fevers, Infant deaths, etc.	...	...	...	163

The bags and registers of the midwives on the whole have been found satisfactory. All inspections, temperature and pulse charts are carefully scrutinised and all temperatures above 98.4 F. or an increased pulse rate are specially investigated.

Ante-Natal Work.

Ante-natal visiting and the records of such on the whole are being more carefully done. This work is really very responsible work for a midwife and more especially for a midwife who qualified before Ante-natal supervision was part of her training. Ante-natal examinations are not easy; it is not always the woman with a contracted pelvis who is short or deformed, nor can a contracted pelvis outlet be recognised until labour is in progress unless by one who has considerable medical experience. Toxaemia Eclampsia may occur without albuminuria.

Extension of Ante-Natal Scheme.

The Maternity and Child Welfare Committee have decided to allow the midwife (starting on April 1st, 1933) to refer their expectant mothers to their own doctor so that they may be medically examined twice during their Ante-natal period. It is hoped that co-operation between the doctors and the midwives will help not only to reduce the Maternal Mortality but also Maternal Morbidity.

This scheme is to be tried for a year throughout the areas for which the County Maternity and Child Welfare Committee are responsible and is referred to in full on page 46.

Midwives' Association.

The Cheshire Midwives' Association (affiliated to the Midwives' Institute) was formed in 1925 and had its seventh annual meeting in June, 1932, when Dr. Ward (Children's Specialist, Manchester) gave a most interesting and up-to-date address.

During the Session 1931-32 a series of seven lectures were given at each of the seven branches. The members of the various branches record their very grateful thanks to all lecturers who so kindly gave their services.

In 1931-32, one widwife (a County Nursing Association Nurse) attended a Month's Refresher Course at Plaistow Maternity Hospital. The Refresher Course is much appreciated by those privileged to attend.

The following notifications have been received under the Central Midwives' Board Rules:—

		Medical Help.		Still-Births		Laying out of the Dead.		Death of a Child.		Source of Infection.		Artificial Feeding.		Discharge from Eyes.
Trained	...	1771	...	65	...	82	...	9	...	70	...	48	...	71
Untrained	...	140	...	9	...	—	...	—	...	5	...	5	...	5

Puerperal Pyrexia.

Ninety-seven cases of Puerperal Pyrexia were notified during 1932. This includes two abortions. The day of onset was as follows:—

1st day—	5 cases.
2nd day—	18 cases.
3rd day—	16 cases.
4th day—	18 cases.
5th day—	13 cases.
6th day—	10 cases.
7th day—	4 cases.
8th day—	9 cases.
9th day—	7 cases.
10th day—	2 cases.
11th day—	2 cases.
12th day—	2 cases.
14th day—	2 cases.
15th day—	2 cases.
16th day—	2 cases.
20th day—	1 case.
21st day—	2 cases.

Number of the above cases proved to be Puerperal	
Fever	29
Cases already in Hospital notified as Pyrexia	8
Number sent to Hospital for Treatment	31
Number seen by Consultants	12
Number of deaths of notified cases	5

Disinfection of the midwives in contact with the above cases was carried out in 63 cases.

The following are some of the causes other than Puerperal Fever to which the raised temperature was attributed.

Influenza, 12 cases.
 Phlebitis, 1 case.
 Bronchitis, 5 cases.
 Mastitis, 5 cases.
 Pneumonia, 4 cases.
 Kidney Disease, 2 cases.
 Cystitis, 1 case
 Pelvic Cellulitis, 2 cases.
 Septic Perinaeums, 3 cases.
 Tuberculosis, 1 case.
 Constipation, 2 cases.
 Rhinitis, 1 case.
 Whitlow, 1 case.
 Tonsillitis, 1 case.
 Septic Tooth, 1 case.
 Middle Ear Disease, 1 case.
 Appendicitis, 1 case.

Nursing and Maternity Homes.

Number on Register at end of 1932	...	...	57
Number given up during the year	...	...	2
Number of New Homes registered during year	...	...	10
Number of Inspections carried out during year	...	...	191

The Inspector has always been received with courtesy and any advice tendered regarding better equipment, altering of rooms, etc., has been acted upon.

There have been 524 births in the above homes and 530 medical and surgical cases during 1932.

Births, etc., Visitations by the Health Visitors.

With regard to the visiting of births under the Notification of Births Acts, the arrangements have been similar to those of the previous years. On receipt of a notification the information is immediately forwarded to the Health Visitor responsible for the district in which the birth has occurred. The mothers of the new babies are visited as soon as possible after the tenth day.

During the child's first year of life the Health Visitor's aim is to visit the child at least monthly but during 1932 the number of visits to babies under 1 year has worked out at an

average of 8 per notified child. Any child however who is weakly and requires more frequent visiting gets visited weekly or fortnightly depending upon the case.

At Runcorn where there are three Health Visitors, the average visit per baby is 5.5 and naturally the 1—5 years old children will get proportionately less visiting. Here there are daily, large Minor Ailment Clinics, requiring 2 nurses in attendance also eye clinics fortnightly, 2 child welfare centre sessions per week and a fortnightly session for Ante-natal cases.

These clinics, etc., take place in the Child Welfare Centre which is now looked upon by the Runcorn Mothers as a Children's Health Centre.

As well as the activities mentioned above at the Child Welfare Centre, there is a weekly session at the Tuberculosis Dispensary and Home Visiting connected with it. These various sessions reduce very considerably the amount of time each Health Visitor can devote to Home Visiting. All the work being done is very important but any lessening of the time devoted to Home Visiting is always to be deprecated. During 1932 the Maternity and Child Welfare Committee of the Northwich Urban District handed over to the County Committee the Maternity and Child Welfare work of its Urban District. It was considered necessary to appoint a second Health Visitor to carry out the Visiting in this area. It was also arranged that the 2 Health Visitors would undertake as well as the Maternity and Child Welfare work, School and Tuberculosis work in the same way as the other Health Visitors under the County Scheme.

The following is a summary of the visits paid by the Lady Medical Officer and Health Visitors during 1932.

First visits to Infants under 1 year	...	...	5458
Revisits to Children under 1 year (Ophthalmia, etc.)	...	...	32667
Revisits to Children over 1 year	...	...	47212
Visits to Expectant Mothers	...	...	1283
Visits to Midwives	...	...	1034

The Method of Feeding Babies.

The following table shows the method of feeding during the first six months of their life of children aged over 6 months and under one year old. There were 953 Rural cases and 1519 Urban cases.

	BREAST.					MIXED.					ARTIFICIAL.				
	1928	1929	1930	1931	1932	1928	1929	1930	1931	1932	1928	1929	1930	1931	1932
1st Month— Rural ...	84	72	74	80	74	4	3	3	1	1	12	25	23	19	25
Urban ...	80	73	73	72	74	5	4	3	5	2	17	23	24	23	24
2nd Month— Rural ...	78	70	71	74	70	5	3	3	2	3	17	27	26	24	27
Urban ...	76	70	69	67	70	6	4	3	5	2	18	26	28	28	28
3rd Month— Rural ...	73	66	65	70	66	6	4	5	3	4	21	30	30	27	30
Urban ...	70	66	63	60	65	7	5	6	6	3	23	29	31	34	34
4th Month— Rural ...	70	61	60	63	60	8	5	6	6	6	23	34	34	31	34
Urban ...	65	62	59	53	60	9	6	7	8	3	26	32	34	39	37
5th Month— Rural ...	67	60	57	55	57	8	6	7	9	6	25	34	36	36	37
Urban ...	64	60	56	50	58	10	7	8	9	4	26	33	36	41	38
6th Month— Rural ...	65	57	55	52	54	9	8	8	10	7	26	35	37	37	39
Urban ...	61	57	56	46	55	12	8	8	10	5	27	35	37	44	40

From the foregoing table it is shown that at the end of 6 months 54 per cent. of Rural mothers and 55 per cent. Urban mothers were able to feed their babies entirely on breast milk, 7 per cent. (Rural) and 5 per cent. (Urban) had breast feeding supplemented with artificial feeding and 39 per cent. Rural babies and 40 per cent. Urban babies were artificially fed.

The percentage at the end of the 6 months is slightly better than that of 1931, although the percentage of breast feeding at the end of the first month is lower than in 1931. It is interesting to work out this percentage as it seemed to those concerned that more mothers were feeding their babies naturally, but it is impossible to form a correct estimate without doing so.

The method of feeding till six months old and health of children at 12 months old is shown below (4439).

				Good. %		Fair %		Poor. %
Breast	{	Rural	...	82	...	15	...	3
		Urban	...	82	...	13	...	5
Mixed	{	Rural	...	71	...	22	...	7
		Urban	...	75	...	21	...	4
Artificial	{	Rural	...	69	...	25	...	6
		Urban	...	70	...	23	...	7

Health of Infants.

The illnesses from which children between one and two years of age have suffered during the first year of life are shown in the following table.

		Birth to 3 months.		3 months to 6 months.		6 months to 9 months.		9 months to 12 months.	
Total.		%		%		%		%	
Respiratory									
Diseases	... 9% ...	·1	...	1	...	3·5	...	4·4	
Convulsions	... ·2% ...	—	...	·01	...	·13	...	·06	
Gastro Enteritis	... 4% ...	·7	...	1·1	...	1·2	...	1	
Measles	... 3% ...	—	...	·3	...	1	...	1·7	
Whooping Cough	... 5% ...	—	...	·7	...	2·3	...	2	
Marasmus	... ·4% ...	·3	...	—	...	·1	...	—	

Health of the Older Children.

In the following table the health of the children at 2 years, 3 years, 4 years, respectively, who have been visited during 1932 are shown.

Feeding.		Health. 2 years. 4570 children.			Health. 3 years. 4089 children.			Health. 4 years. 3564 children.		
		Good.	Fair.	Poor.	Good.	Fair.	Poor.	Good.	Fair.	Poor.
Breast—		%	%	%	%	%	%	%	%	%
Rural ...		83	15	2	84	13	3	84	14	2
Urban ...		82	14	4	81	16	3	80	17	3
Mixed—										
Rural ...		82	14	4	80	15	5	73	24	3
Urban ...		76	20	4	73	24	3	72	23	5
Artificially—										
Rural ...		72	24	4	70	24	6	70	27	3
Urban ...		71	23	6	68	27	5	65	29	6

Some of illnesses from which the above children have suffered are as follows:—

	2 years.	3 years.	4 years.
	%	%	%
Respiratory Diseases ...	4	3	3
Measles ...	5	7	5
Whooping Cough ...	5	5.5	5
Scarlet Fever ...	.2	.1	.5
Diphtheria ...	.1	.2	.2

Signs of Rickets were noted in 5.7 per cent. of the children between 1 and 4 years of age. 5.5 per cent were slight and .2 per cent. were marked.

Deaths of Infants under One Year.

Table giving particulars of deaths of 145 children under 1 year and over ten days old, 89 males and 56 females.

	Method of Feeding.	10 days to 3 months	3 months to 6 months	6 months to 9 months	9 months to 12 months
Respiratory Diseases ...	Breast ...	10	5	—	10
	Artificial..	8	10	5	—
Convulsions ...	Breast ...	2	1	1	—
	Artificial...	6	2	—	—
Measles ...	— ...	—	—	1	3
Marasmus ..	Breast ...	2	—	—	—
	Artificial...	7	—	2	2
Whooping Cough ...	— ...	3	4	1	3
Gastro-Enteritis ...	Breast ...	—	—	1	—
	Artificial...	4	3	—	2
Meningitis ...	Artificial...	—	—	4	2
Suffocation (own Cot)...	— ...	1	—	1	—
Overlain ...	— ...	1	—	—	—
Debility ...	— ...	3	—	—	—
Syphilis ...	— ...	1	—	—	—
Tabes Mesenterica ...	Artificial...	1	—	1	2
T. B. Meningitis ...	Artificial...	—	1	1	1
Diphtheria ...	— ...	—	—	—	1
Intussusception ...	— ...	—	—	1	—
Appendicitis ...	— ...	—	1	—	—
Accidents (Scalds) ...	— ...	—	—	—	1
Prematurity ...	— ...	11	—	—	—
Enlarged Thymus ...	— ...	1	—	1	—
Hydrocephalus ...	— ...	—	—	1	1
Malformations ...	— ...	6	1	1	—

Deaths of Older Children.

Table giving particulars of deaths of 99 children (50 males and 49 females).

		1—2 years old.	2—3 years old.	3—4 years old.	4—5 years old.
Respiratory Diseases	...	19	7	4	4
Convulsions	...	3	—	—	—
Whooping Cough	...	5	3	1	—
Gastro-Enteritis	...	—	1	—	1
Meningitis	...	6	4	1	—
Tubercular Meningitis	...	3	1	1	1
Tabes Mesenterica	...	2	—	—	1
Diphtheria	...	—	3	—	2
Measles	...	8	3	—	—
Accidents	{ Scalds	1	1	1	—
	{ Burns	—	—	—	1
	{ Drowned	—	—	—	1
	{ Killed	—	—	—	3
Bantis Disease	...	—	—	1	—
Nephritis	...	1	—	—	—
Mastoiditis	...	—	1	—	—
Enlarged Thymus	...	—	—	1	—
Congenital Malformation of Heart	...	—	—	—	1
Intussusception	...	—	—	1	1

Deaths of Infants under 10 days old.

The following table gives particulars of deaths of 83 infants under 10 days old (44 males and 39 females).

Premature birth	...	...	27—13	births attended by	Doctor.
			14	„	Midwife.
Atelectasis	...	...	1	„	Doctor.
Difficult labour	...	...	4—4	„	Doctor.
Convulsions	...	...	7—5	„	Doctor.
			2	„	Midwife.
Malformations	...	...	7—5	„	Doctor.
			2	„	Midwife.
Internal Hemorrhage	...	...	4—4	„	Doctor.
			19	„	Doctor.
Feebleness	...	...	28—9	„	Midwife.
Asphyxia	...	...	4—4	„	Doctor.
Shock	...	...	1—1	„	Midwife.
Gastro Enteritis	...	...	1—1	„	Midwife.

Two of the mothers of above cases had been working in a factory during pregnancy. Four of the children were illegitimate births. Among the above there were three twins pregnancy, only one of six children surviving. In thirty cases the babies were first births.

Still-births.

The following table gives some particulars of 139 still-births that have been enquired into, viz. (69 males and 70 females).

Born before arrival	...	...	10	Full-time
Prolapse of Cord	...	...	4	Full-time
Eclampsia	..	...	2	Premature
History of Albuminuria	..	...	9	Premature
		...	17	Full-time
Ill-health of Mother	...	...	6	Premature
Malpresentation or Difficult Labour	...	...	40	Full-time
Cause unknown	...	...	15	Full-time
Shock or Accident to Mother	...	...	5	Full-time
		...	2	Premature
Ante-partum Hemorrhage	...	...	19	Premature
Cord round Neck	...	...	4	Full-time
Placenta Prævia	...	...	2	Full-time
Anencephalic Monster	...	...	3	Full-time
Malformation	..	...	1	Full-time

Forty-six of the above cases were first-births. In seven cases there was a previous history of more than one miscarriage or still-birth, and in 9 cases a history of one miscarriage or still-birth. In five of the nine cases the still-birth occurred in the second pregnancy so that 5 of the mothers had not given birth to a live child. Eleven of the mothers had worked in a factory during pregnancy and eleven others had followed other occupations. Nine of the above still-births were illegitimate births.

Ophthalmia.

There have been notified 71 cases of inflammation of or discharge from the eyes in new born babies. Forty-six of the cases were only slight. Most of the cases occurred between the third and fifth days. In six cases the birth was attended by a doctor. Sixty-five cases were attended by midwives. The following is a description of the cases:—

Slight Cases—one eye affected	...	5
both eyes	„	41
Severe Cases—one eye	„	9
both eyes	„	16

Five of the severe cases were treated in Hospital and sixteen attended by Health Visitors. Sixty-nine of the cases made perfect recoveries but two cases had resulting scars—one case—on both eyes. In the other a small scar on one eye. Both of these cases were treated in Hospital.

Illegitimate Children.

Special enquiries have been made into the circumstances of ninety-two illegitimate children born in 1932. In forty-seven cases the mother was employed. Eighty-five were found to be quite satisfactorily cared for, five only fairly satisfactorily attended to, and one not satisfactorily looked after. The father was known to be contributing to the child's maintenance in forty-six cases, and in ten cases it was impossible to ascertain. Thirty-three fathers made no contribution and two of the parents had since got married.

Thirty-nine of the babies were being brought up by their mothers, forty-two principally by grandmothers, two by other relatives, two children were adopted, three went in Institution and one died.

Expectant Mothers.

During 1932 there were 1,283 visits and revisits paid to expectant mothers. The following interesting points have been noted in 189 of the cases visited during 1932 (the babies being born in 1932).

Those in good health 70 per cent.

Fair health 25 per cent.

Poor Health 5 per cent.

In all 10 per cent. were advised to seek medical advice.

Urged to do so on account of passing

a scanty amount of urine 1 per cent.

Suffering from constipation 15 per cent.

Serious cases of teeth of which 7 per cent.

were noted to be in very bad con-

dition 44 per cent.

Normal babies were born in 90 per cent. of cases.

Not robust in 4 per cent. of cases.

Died, 2 per cent. of cases.

Still-birth and miscarriages in 4 per cent. of cases.

Of the 189 mothers only one was a primiparae and two of them gave birth to twins. As midwives are now expected by their rules to visit their own Ante-natal cases, Health Visitors do very little visiting in this connection.

The number of cases recorded above is only small and is mostly of pregnant women whom the Health Visitor is visiting on account of their other children, consequently very few primiparae are seen.

Maternal Mortality (for 1,000 total live and still-births).

The maternal mortality rate was 4.35, being 1.14 from Puerperal Sepsis, and 3.21 from other causes.

Maternity and Child Welfare Centres.

During the autumn of 1932 one new centre was opened at Grappenhall and the County Maternity and Child Welfare Committee became responsible for the Northwich Centre. At the request of the Partington Women's Institute, the help of the Lady Assistant Medical Officer, Health Visitor, and a Voluntary Committee, a Centre was started in the Parish Hall, Partington. The mothers and babies of this district (which is small and rather isolated) have attended well and thus justified the commencing of a Centre for them.

The present Northwich Urban Centre is not in a very convenient place either for mothers or to be used as a School Clinic but it is hoped in the future to find premises in a more suitable situation.

There are now 33 centres in the County Area, all are County Council Centres except the Voluntary Centres at Utkinton, Partington, and Bowdon. At each of these three centres excellent work is being done among the mothers and babies of these villages.

At all centres the members of the Voluntary Committees continue their faithful and untiring service which is much appreciated by all concerned.

Dental Treatment.

By the arrangement with the Education Committee this work is undertaken by eight School Dentists, each one devoting one-eighth of his time to this work. The Maternity and Child Welfare Committee pay the cost of one Dentist and Nurse. So far only six expectant mothers have taken advantage of this service. It is difficult to persuade them that it is better for them to have the necessary dental attention during their pregnancy. The following is a summary of the work carried out.

Number of Children Inspected	...	...	396
" " Selected	...	...	288
" Mothers "	...	...	6
" Temporary Teeth Extracted	...	...	478
" Permanent Teeth Extracted	...	...	6
" Temporary " Filled	...	...	149
" Permanent " "	...	...	6
" Scalings ...	...	...	5
" Gum Dressings	...	...	3
" Temporary Teeth Dressed	..	..	32
" Children Treated	...	...	246
" Mothers "	...	...	6

Cheshire Gold Cross Society.

During 1932 the Cheshire Gold Cross Society met three times in Chester. As explained in previous reports the object of the Society is to bring the Voluntary Workers together to discuss difficulties arising in the work of the Centres and to exchange ideas, etc. The annual meeting was held at the Castle, Chester, in June, 1932. At this meeting the work of the competitions was on view and the shields and pictures won were presented by Mrs. Mercer (Buxton Child Welfare Centre) to representatives of the successful Centres. After the presentations Mrs. Mercer gave an interesting address which was much appreciated.

The Cheshire Gold Cross Shield was won for the second year in succession by Sandbach Centre (this shield is awarded to the Centre gaining the highest total marks in all competitions).

Free Milk Supplied.

During 1932, 1,000 expectant mothers, nursing mothers and babies received free milk through the County's scheme for supplying free milk in necessitous cases. A pint of milk daily or a tin of dried milk per week has been supplied for varying periods of time depending on the circumstances of the cases. This year the number of eligible cases was very much increased. In order to keep within the estimates for this purpose it is necessary to select very carefully the cases wherein the need was greatest.

A list of all cases having free milk is submitted to the Public Assistance Officer.

Maternity Hospital and Homes.

During 1932 there have been 147 mothers who through the help of the County Maternity and Child Welfare Committee have had their confinements in a Maternity Hospital and Home. Only mothers who through lack of accommodation in their homes or some expected difficulty in their confinement have been eligible for this assistance.

The parents contribute to the cost as much as their circumstances will allow—usually if they are entitled to a Maternity Benefit this amount is claimed.

The confinements have taken place in the following Institutions:—

Liverpool Maternity Home	...	18
Ashton-under-Lyne Infirmary	...	22
Chester Maternity Home	...	4
Clatterbridge „	...	7
Macclesfield „	...	1
Crewe „	...	34
Warrington „	...	31
Widnes „	..	21
Hyde „	...	2
Chester Infirmary	...	2
Longton „	...	4
Birkenhead „	...	1

Infant Life Protection.

The law relating to Infant Life Protection which since the passing of the Local Government Act, 1929, has been administered by the Maternity and Child Welfare Authorities has been considerably altered and amended in the Children and Young Persons' Act, 1932. Anyone receiving or having a child under 9 years (previously 7 years) for gain must notify to the Medical Officer of Health. There are also various alterations as regards notice of receiving a child, deaths, etc. In November, 1932, each foster mother received a copy of these alterations which came into force on January 1st, 1933.

Also Health Visitors under whose supervision these cases are, had special instructions regarding the new Act. Under this Act, the Health Visitor has to take a much wider view of her responsibility towards these children as she is responsible for their "well-being."

On the whole the foster mothers do very well for their little charges and often at little or no remuneration.

There was however one foster mother who was not satisfactory with young babies. She was advised not to take any children under 2 years old. She agreed to this arrangement and since then there has been no trouble with her nurse children.

I. NOTIFICATION.

(i.) Number of Foster Parents on Register	...	...	100
(ii.) Number of Children on the Register	...	...	125

II. VISITING.

(i.) Number of Visitors holding appointments under Section 2 (2) at the end of the year :			
(a) Health Visitors	...	...	39
(b) Others	...	..	Nil.
(ii.) Number of Societies authorised to visit under the proviso of Section 2 (2)	...	...	Nil.

III. Number of Cases in which proceedings were taken	...	Nil.
--	-----	------

Ante-natal Clinics.

There are in the County Area at the end of 1932 four Ante-natal Clinics—at one of these (Runcorn) there are fortnightly sessions and the other three have monthly sessions. Each of these clinics is in charge of a specialist.

The one which had been held at Middlewich was discontinued—it had not the support of the local doctors. The midwives attend with their patients and are present at the examinations.

		Number of Clinics held.		Number of Mothers.		Number in Attendance.
Congleton	...	12	...	89	...	138
Hoole	...	12	...	59	...	108
Runcorn	...	23	...	142	...	518
Sale	...	12	...	46	...	122

At Dukinfield there is an arrangement that expectant mothers may attend the Ante-natal Clinic run in connection with the Ashton-under-Lyne Infirmary.

As explained in a previous report the special Ante-natal scheme inaugurated by Dr. Picton at Winsford was continued during 1932. Under this scheme the expectant mother is examined twice during her pregnancy by her own doctor, who sends a full report of such examinations to the County Medical Officer. The doctor receives a fee of 10s. 6d. for all non-insured cases examined.

Particulars of Reports received during 1932:—

- 73 cases examined (child born 1932).
- 19 cases examined (child not born).
- 73 cases—20 insured, 53 uninsured.
- 37 primiparae, 36 multiparae.
- 54 had natural deliveries, 14 instrumental deliveries.
- 2 had premature labours.
- 1 Miscarried.
- 1 had Caesarean Section in hospital.
- 1 sent to hospital—difficult labour.

Seven of above cases were successfully treated for albuminuria, and five other cases had a trace of albumen. Three cases had definite pyorrhœa.

Ante-natal care is essentially an all-important preventive work. So often this work is mostly advisory but again it often reveals in their earliest and most amenable stages complications which can be treated immediately and save grave illness on the part of the mother or the unborn child. In a County it is difficult to have a scheme which is applicable to Urban and Rural districts alike. The above scheme seems to be the most comprehensive and suitable for this County and it is gratifying that the Maternity and Child Welfare Committee have decided to extend it to the areas under its control.

LIST OF INFANT WELFARE CENTRES.

Centres.	Weekly or Fortnightly.	Day of Meeting.	Consultations held.	Average Attendances.	New Cases.	Total Attendances.
Bollington ...	Fortnightly	Thursday	573	50	32	1125
Bowdon ...	Fortnightly	Thursday	—	20	—	432
Bredbury ...	Fortnightly	Tuesday	769	45	16	1120
Cheadle ..	Fortnightly	Tuesday	469	47	79	1136
Compstall ...	Fortnightly	Thursday	570	30	25	757
Congleton ...	Weekly	Monday	2019	57	128	2757
Disley ...	Fortnightly	Tuesday	389	21	30	505
Dukinfield ...	Twice weekly	Wednesday & Thursday	1886	74	234	16394
Grappenhall ...	Fortnightly	Monday	50	20	—	100
Hazel Grove ...	Weekly	Thursday	995	50	101	2384
Heswall ...	Fortnightly	Monday	263	31	44	754
Hollingworth ...	Fortnightly	Wednesday	362	22	34	550
Hoole ...	Weekly	Tuesday	752	38	135	1833
Hoylake ...	Weekly	Thursday	1017	53	110	2614
Lymm ..	Weekly	Tuesday	977	31	55	1374
Malpas ..	Fortnightly	Tuesday	466	21	34	536
Marple ...	Fortnightly	Tuesday	488	37	43	841
Middlewich ...	Weekly	Monday	1164	39	70	1885
Mow Cop ...	Fortnightly	Wednesday	292	14	24	317
Nantwich ...	Weekly	Monday	665	59	98	2779
Neston ...	Weekly	Thursday	579	69	84	3189
Northwich (Darland House)	Weekly	Friday	511	9	172	643
Northwich ... (Parkfield)	Weekly	Thursday	858	53	154	2150
Owley Wood ...	Fortnightly	Tuesday	509	31	65	783
Partington ...	Fortnightly	Thursday	—	24	—	212
Romiley ...	Fortnightly	Thursday	645	40	67	1002
Runcorn ...	Twice weekly	Tuesday & Wednesday	2171	52	239	5074
Sale ...	Twice weekly	Monday & Thursday	2373	49	207	4684
Sandbach ...	Fortnightly	Tuesday	917	49	88	1224
Stockton Heath...	Fortnightly	Monday	493	46	56	1105
Tarporley ...	Fortnightly	Thursday	249	15	203	316
Utkinton ...	Fortnightly	Thursday	281	21	9	494
Whaley Bridge ...	Fortnightly	Wednesday	442	41	33	952
Wilmslow ...	Weekly	Tuesday	841	60	113	2901
Winsford ...	Weekly	Friday	816	18	121	880

Maternity and Child Welfare Orthopaedic Scheme.

The Orthopaedic Scheme as fully set out in Section V page 47 of this report is available to all cripple children under the age of 5. During the year there were 2,017 attendances at the clinics, and 23 cases received Institutional treatment.

Institutional Treatment of cases under the County Maternity and Child Welfare Scheme.

Institutional treatment was afforded to 99 children—59 boys and 40 girls during the year.

Of these cases 23 were Orthopaedic cases and 76 medical cases.

The following table shows in detail the hospitals where treatment was carried out and the conditions for which the children were referred.

--

CHESHIRE.
INFANT MORTALITY RATES.

Year.	1922	1923	1924	1925	1926	1927	1928	1929	1930	1931	10 Year Average.
Aggregate Counties of England and Wales ..	71	64	68	69	64	64	60	68	56	61	64.5
Cheshire County..	67	65	70	73	70	61	58	65	57	55	64.1
Cheshire M.C.W. Area ..	59.9	43.1	67.5	71.1	50.6	57.5	58.6	61.8	62.6	53.3	57.40
Cheshire Independent M.C.W. Authorities ..	81.3	75.0	75.1	76.9	79.6	69.1	59.2	71.7	55.9	57.7	70.40

Statement giving Particulars of Specimens Examined in County Public Health Laboratory during the Years 1920 to 1932 inclusive.

Statement giving Particulars of Specimens Examined in County Public Health Laboratory during																																				
YEAR.	Sputums.		Urines.		Glands.		Pleural Effusions.		Blood.		Pus.		Urethral Discharge.		Hair for Ringworm.	Skin.	Fæces for Worms.		Ulcer of Lip.		Fallopian Tubes.	Swab from Mouth.	Cerebro Spinal Fluid.		Tonsils for T.B.	Fæces for T.B.		Total Number of Specimens from patients examined.	Milk.	Sputa from Cows.		Total Number of Specimens examined.	Concentration Method Patients' Sputa.		Total Number of Examinations made.	
	Pos.	Neg.	Pos.	Neg.	Pos.	Neg.	Pos.	Neg.	Pos.	Neg.	Pos.	Neg.	Pos.	Neg.			Pos.	Neg.	Pos.	Neg.			Pos.	Neg.		Pos.	Neg.			Pos.	Neg.		Pos.	Neg.		Pos.	Neg.	Pos.	Neg.
1920	292	1054	..	2	..	..	..	..	..	..	2	..	..	..	..	1	..	..	..	1	..	..	..	..	..	..	..	1352	..	1	..	..	1353	..	..	1353
1921	459	1264	2	5	1	..	..	3	*1	..	..	..	..	..	3	4	..	1	..	..	..	..	..	..	..	..	..	1735	..	..	..	..	1735	..	..	1735
1922	511	1379	..	5	2	..	..	1	..	..	1	1	†1	..	..	..	..	..	..	..	..	..	..	..	..	..	..	1908	..	2	..	..	1910	..	..	1910
1923	604	1359	3	9	..	..	..	2	..	..	1	1	..	..	2	12	..	..	..	1	..	..	..	..	..	..	..	1981	..	3	..	..	1984	..	..	1984
1924	528	1548	1	2	1	3	..	2	..	..	..	1	..	..	9	21	..	..	..	..	1	..	..	..	..	..	..	2101	..	1	..	..	2102	..	..	2102
1925	516	1566	..	6	..	..	..	2	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	2122	..	1	..	..	2123	..	..	2123
1926	505	1451	..	4	..	..	..	1	..	..	..	2	..	..	8	8	..	..	..	..	..	..	..	..	..	..	..	1979	..	..	..	..	1979	..	..	1979
1927	416	1790	..	1	..	..	..	1	..	..	..	..	..	..	6	5	..	..	..	..	..	..	..	..	..	..	..	2219	..	..	..	..	2219	..	..	2219
1928	463	1790	..	6	..	..	..	2	..	..	1	4	..	..	7	6	..	..	..	..	..	..	..	..	..	..	..	2285	..	..	..	..	2285	..	..	2285
1929	484	1717	..	4	..	..	..	1	..	..	1	1	..	..	7	6	..	..	..	..	..	..	..	..	1	..	..	2221	..	..	..	..	2221	..	..	2221
1930	560	1763	1	6	..	..	..	1	..	..	..	3	..	..	3	6	..	..	..	..	..	..	..	..	1	..	..	2346	..	..	..	..	2346	..	..	2346
1931	664	1926	..	4	..	..	..	1	..	..	1	1	..	..	48	69	..	..	..	..	..	..	..	..	..	..	..	2718	..	..	..	..	2718	..	..	2718
1932	647	1945	..	9	..	..	..	5	..	..	..	1	..	..	12	18	..	..	..	..	..	..	1	..	..	..	..	2639	132	276	25	2	3074	26	359	3459

* Film appeared to be one of secondary Anæmia.

† Gonococci present.

CHESHIRE.

Sanitary Districts in order of Average Infant Mortality
Rates, 1922—31.

Hollingworth U.	104.3
Stalybridge B.	87.0
Crewe B.	84.3
Dukinfield B.	79.2
Bollington U.	78.6
Ellesmere Port U.	79.2
Knutsford U.	73.0
Northwich U.	73.0
Hyde B.	72.5
Winsford U.	72.4
Macclesfield B.	72.1
Hazel Grove U.	71.3
Runcorn U.	70.9
Congleton R.	70.9
Nantwich U.	69.7
Nantwich R.	68.0
Middlewich U.	67.9
Sandbach U.	66.9
Boroughs and Urban Districts—Cheshire	66.7
Congleton B.	66.7
Tarporley U.	66.1
Neston U.	64.8
Wilmslow U.	64.8
Cheshire County.. . . .	64.1
Hoole U.	60.5
Alderley Edge U.	60.4
Sale U.	59.6
Rural Districts—Cheshire	58.8
Mottram U.	58.7
Lymm U...	58.5
Altrincham U.	57.7
Bredbury U.	57.6
Hale U.	55.7
Bucklow R.	55.5
Chester R.	54.9
Malpas R.	54.5
Tarvin R...	54.0
Wirral R.	53.7
Bebington U.	53.7
Macclesfield R.	52.5
Marple U.	52.2
Runcorn R.	51.0
Yeardsley U.	48.9
Tintwistle R.	47.5
Cheadle U.	47.4
Disley R...	47.1
Buglawton U.	45.2
Compstall U.	40.9
Alsager U.	38.1
Bowdon U.	35.9
Handforth U.	28.3
Cheshire M.C.W. Area	57.4

CHESHIRE.

INFANT MORTALITY RATES.

Year.	1922	1923	1924	1925	1926	1927	1928	1929	1930	1931	10 Year average
Altrincham ..	74	65	64	67	81	68	59	29	43	47	47.7
Bebington ..	64	47	44	62	68	36	45	54	74	45	53.7
Crewe B. ..	76	71	68	73	64	73	55	89	56	51	66.7
Ellesmere Port ..	117	66	64	128	83	92	64	66	44	68	79.2
Hale ..	70	56	27	43	56	63	33	96	16	57	55.7
Hyde B. ..	62	68	103	73	105	60	55	93	38	68	72.5
Knutsford ..	109	92	71	58	55	99	101	40	44	83	73.0
Macclesfield B. ..	68	91	85	66	81	63	74	77	72	44	72.1
Stalybridge B. ..	82	106	102	87	98	73	65	81	88	80	87.0
Averages for Indep. Areas	81.3	75.0	75.1	76.9	79.6	69.1	59.2	71.1	55.9	57.7	70.40
Cheshire Boroughs and Urban Districts ..	73	68	70	75	75	64	61	68	56	57	66.7
Cheshire M.C.W. Area..	59.9	43.1	67.5	71.1	50.6	57.5	58.6	61.8	62.6	53.3	57.40
Alderley Edge ..	38	63	14	19	139	73	75	74	—	59	60.4
Alsager ..	20	—	29	42	32	29	37	80	47	67	38.1
Bollington ..	64	47	44	62	68	36	45	54	74	45	53.7
Bowdon ..	33	—	21	—	184	32	—	36	83	—	35.9
Bredbury ..	45	74	42	130	43	9	26	102	59	46	47.6
Buglawton ..	29	27	29	26	115	—	42	135	69	—	45.2
Cheadle ..	73	34	38	44	52	37	52	59	43	42	47.4
Compstall ..	—	59	56	91	—	43	83	—	77	—	44.9
Congleton B. ..	89	59	98	58	50	50	61	80	66	56	66.7
Dukinfield B. ..	99	98	65	121	90	55	84	55	73	103	84.3

Independent M.C.W. Authorities.

Section VII.-Rivers Pollution Prevention. Sewerage and Sewage Disposal.

MUNICIPAL BOROUGHS.

CONGLETON BOROUGH.

The schemes for the reconstruction of surface water sewers, the sewerage of Mossley area to a new pumping station, and the reconstruction of the sewage disposal works has now reached an advanced stage.

On account of extensive alterations now being carried out at the disposal works the final effluent discharging into the river has unavoidably been unsatisfactory.

CREWE BOROUGH.

The Sewage Disposal Works consist of screens, detritus tanks, sedimentation tanks, percolating filters, humus tanks and storm tanks. Periodical samples of sewage effluents from the works have been reported as being satisfactory.

DUKINFIELD BOROUGH.

STALYBRIDGE BOROUGH.

The sewage of these districts is received and treated at the works of the Dukinfield and Stalybridge Joint Sewerage Board, which are supervised by the Mersey and Irwell Joint Committee.

MACCLESFIELD BOROUGH.

The sewage works consist of sedimentation tanks, percolating filters, humus tanks, land and small bio-aeration plant, and storm tanks. Extensions have been recently completed and put in operation. The works are supervised by the Mersey and Irwell Joint Committee.

URBAN DISTRICTS.

ALDERLEY EDGE URBAN DISTRICT.

Sewage is treated by means of sedimentation tanks and land irrigation. The works are supervised by the Mersey and Irwell Joint Committee.

ALSAGER URBAN DISTRICT.

The enlargement of the Sewage Works was satisfactorily completed in June. An additional 60-feet diameter filter bed,

an additional detritus tank, a storm overflow, new sludge lagoons, and an extension of the irrigation area were the principal items dealt with. Considerable minor improvements were also effected.

Development of a building site in Lawton Road has commenced; owing to the difference in levels this area cannot be connected to the present sewerage system. A separate septic tank and filter is being built to each pair of houses and a common filter is to be installed at the lower end of the site. The effluent will be discharged into the boundary brook.

The scheme of conversions to the water-carriage system was completed by the end of the summer, and has proved very satisfactory; 319 privies were converted to water closets, and 11 privies were abolished altogether. There are now approximately 704 houses on the water-carriage system.

ALTRINCHAM URBAN DISTRICT.

The Sewage Works consist of sedimentation tanks and land irrigation, and are supervised by the Mersey and Irwell Joint Committee.

BEBINGTON URBAN DISTRICT.

With the exception of small works which deal with groups of houses situated at a distance from the main sewerage system, the whole of the sewage of this district is discharged into the tidal portion of the River Mersey.

BOLLINGTON URBAN DISTRICT.

The Sewage Works consist of sedimentation tanks, percolating filters, humus tanks and storm tanks. No complaints have been received during the year as regards the effluent. These works are supervised by the Mersey and Irwell Joint Committee.

BOWDON URBAN DISTRICT.

The Sewage Works consist of sedimentation tanks and land irrigation. Two acres of additional land have been brought into use. The works are supervised by the Mersey and Irwell Joint Committee.

BREDBURY AND ROMILEY URBAN DISTRICT.

Bredbury Sewage Works consist of precipitation tanks, percolating filters, humus tanks, and storm tanks.

Romiley Sewage Works consist of sedimentation tanks, continuous filters and land, storm tanks and filters.

Both works are supervised by the Mersey and Irwell Joint Committee.

A comprehensive scheme for combining both these works is in preparation for submission to the Ministry of Health.

BUGLAWTON URBAN DISTRICT.

The sewage of the Urban District is received and treated at the sewage disposal works of Congleton Municipal Borough.

CHEADLE AND GATLEY URBAN DISTRICT.

The existing Sewage Works consist of precipitation tanks, storm tanks and land filters, and are supervised by the Mersey and Irwell Joint Committee. Under the provisions of Manchester Corporation Act, 1930, the Urban District Council are authorised to require the sewage of the Urban District to be received and treated by Manchester Corporation not later than April, 1935.

Owing to the rapid development in the Urban District the Councils' Sewage Works are seriously overtaxed, and application has been made to the Ministry of Health for a loan in respect of a joint sewer to convey the sewage of the Urban District to Manchester Sewage Works 18 months in advance of the time specified in the Manchester Corporation Act, 1930.

COMPSTALL URBAN DISTRICT.

There are no Sewage Works for this District. The existing sewers discharge into a power lodge owned by the Calico Printers' Association. The Urban District is in the area controlled by the Mersey and Irwell Joint Committee.

ELLESMERE PORT URBAN DISTRICT.

Work is nearing completion on the scheme of sewer extensions, reconstruction of the Ellesmere Port Sewage Works, and the construction of a new main sewage disposal works in the parish of Little Stanney.

HALE URBAN DISTRICT.

The Sewage Works consist of activated sludge tanks and storm tanks. Improvements have been effected during the year in sludge disposal, including sludge digestion plant. Seventy-five per cent. of the sewage of the Urban District is dealt with at these Works.

Sewage from the northern portion of the district is received and treated at the Sewage Works of Altrincham Urban District Council, by agreement.

A portion of the Parish of Ringway in the Bucklow Rural District is drained to Hale Sewage Works, by agreement.

The above Works are supervised by the Mersey and Irwell Joint Committee.

HANDFORTH URBAN DISTRICT.

The Urban District is without a proper sewerage system or sewage disposal works. A Ministry of Health Inquiry was held in September, 1931, into an application for a loan of £19,090 in respect of a sewerage scheme.

This scheme is being held up on account of the delay in reconstructing and enlarging Wilmslow Northern Sewage Works, which are intended to subsequently receive and treat the sewage of Handforth.

HAZEL GROVE AND BRAMHALL URBAN DISTRICT.

Hazel Grove Sewage Works consist of screens, detritus tanks, sedimentation tanks, percolating filters, humus tanks, storm tanks and sludge drying beds.

Bramhall Sewage Works consist of septic tanks and precipitation tanks, continuous filters and lagoons.

Both these Works are supervised by the Mersey and Irwell Joint Committee.

HOLLINGWORTH URBAN DISTRICT.

These Works, which have recently been reconstructed, consist of precipitation tanks, continuous filters and land irrigation. The Works are under the control of the Mersey and Irwell Joint Committee.

HOOLE URBAN DISTRICT.

With the exception of about forty houses at Piper's Ash, which are drained into small septic tank and filter, the whole of the sewage of the Urban District is received and treated at the Sewage Works of Chester Corporation.

HOYLAKE AND WEST KIRBY URBAN DISTRICT.

The sewage of Hoylake is disposed of by discharge to sea at Dove Point, Great Meols, where there are two sewage tanks, which are emptied two hours after each ebb tide.

There are two outfalls at West Kirby—one north and one south of the Marine Lake—consisting of tank sewers with sea valves.

KNUTSFORD URBAN DISTRICT.

The Sewage Works consist of sedimentation tanks, percolating filters, humus tanks, storm tanks, and land irrigation. The Works are supervised by the Mersey and Irwell Joint Committee.

LYMM URBAN DISTRICT.

The Urban District is divided into two drainage areas. Sewage is treated at the Sow Brook Works by precipitation tanks and land filtration, and at the Statham Sewage Works by land irrigation only. Both these Works are supervised by the Mersey and Irwell Joint Committee.

MARPLE URBAN DISTRICT.

Sewage from the greater part of the district is dealt with at the Council's Sewage Works, consisting of sedimentation tanks, continuous filters, land irrigation and storm tanks.

A small septic tank and $2\frac{1}{2}$ acres of land deals with the sewage of Strines District.

The sewage from the north-westerly part of the district is treated at Ludworth, Mellor and Low Marple Joint Sewerage Board's Works at Compstall, which consist of sedimentation tanks, continuous filters, land irrigation and storm tanks.

The above Works are supervised by the Mersey and Irwell Joint Committee.

MIDDLEWICH URBAN DISTRICT.

The Sewage Works consist of sedimentation tanks, primary and secondary filter beds. The Works are seriously affected by subsidence due to brine pumping.

MOTTRAM-IN-LONGDENDALE URBAN DISTRICT.

The Sewage Works consist of precipitation tanks, continuous filters, and land irrigation, and are supervised by the Mersey and Irwell Joint Committee.

NANTWICH URBAN DISTRICT.

The necessary drawings, estimates, etc., for the comprehensive sewerage and sewage disposal scheme have been submitted to the Ministry of Health.

NESTON AND PARKGATE URBAN DISTRICT.

The Sewage Works consist of sedimentation tanks, storm tanks, percolating filters and humus tanks. The final effluent is discharged into the tidal portion of the River Dee.

NORTHWICH URBAN DISTRICT.

The Council have completed the new sewerage scheme for the diversion of sewage from the abandoned Witton Outfall Works to the Joint Outfall Works at Winnington. In view of the additional amount of sewage being received at Winnington Works alterations and extensions to these works have been completed during the year.

RUNCORN URBAN DISTRICT.

Most of the sewers are connected to a large intercepting sewer which passes under the Ship Canal at the western boundary of the district, and discharges into the Mersey Estuary.

SALE URBAN DISTRICT.

A large scheme which includes extensions to sewers and the construction of a complete new sewage works has been sanctioned by the Ministry of Health. Work is in progress.

SANDBACH URBAN DISTRICT.

Work has been completed on the scheme for sewer extensions and the construction of a complete new sewage works.

TARPORLEY URBAN DISTRICT.

The Sewage Works consist of sedimentation tanks and land irrigation.

WILMSLOW URBAN DISTRICT.

The northern sewage works consist of precipitation tanks and land filtration; a revised scheme of reconstruction of these works is before the Ministry of Health.

The southern sewage works consist of sedimentation tanks, percolating filters, humus tanks, land filtration and storm tanks.

Both works are supervised by the Mersey and Irwell Joint Committee.

WINSFORD URBAN DISTRICT.

The sewage works consist of screens and detritus tanks and cinder filter beds adjoining a large "flash" into which the final effluent is discharged.

YEARDSLEY-CUM-WHALEY URBAN DISTRICT.

The sewage of the Urban District is treated at the works of Whaley Bridge and District Joint Sewerage Board which consist of sedimentation tanks, percolating filters, humus tanks and storm tanks. Extensions to filters, humus tanks and storm tanks have been completed during the year.

The works are supervised by the Mersey and Irwell Joint Committee.

RURAL DISTRICTS.

BUCKLOW RURAL DISTRICT.

Dunham Massey Sewage Works consist of sedimentation tanks and land filtration. A scheme for extending these works has been approved by the Ministry of Health.

Mobberley Sewage Works consist of sedimentation tanks, percolating filter, humus tank and storm filter.

Timperley Sewage Works consist of sedimentation tanks, continuous filters and land irrigation. A scheme for improving these works has been approved by the Ministry of Health but postponed until settlement of question of amalgamation of this parish with Altrincham.

These works are supervised by the Mersey and Irwell Joint Committee.

CHESTER RURAL DISTRICT.

The parishes of Great Boughton, Christleton, Newton and Upton are provided with sewers, the sewage being received and treated at the works of Chester Corporation.

The parishes of Dodleston, Eccleston and Pulford are provided with sewers and sewage disposal works.

The attention of the Rural District Council has been called to the necessity for sewerage and sewage disposal schemes for the parishes of Blacon, Great Saughall, Little Saughall and Littleton.

CONGLETON RURAL DISTRICT.

Church Lawton. A sewerage system and a small sewage disposal works for this parish was completed in 1931.

Elworth. The sewage works for this area consist of sedimentation tanks, percolating filters, humus tanks and storm tanks.

Malkins Bank. A small sewage works consisting of sedimentation tanks and a percolating filter deals with this area.

Holmes Chapel Sewage Works and Mount Pleasant, Mow Cop, Sewage Works consist of sedimentation tanks and land irrigation. Both these works are in need of improvement.

DISLEY RURAL DISTRICT.

The Sewage Works consist of precipitation tanks, percolating filters, humus tanks and storm tanks. The works are supervised by the Mersey and Irwell Joint Committee.

MACCLESFIELD RURAL DISTRICT.

Chelford. The sewage of this parish is dealt with by means of sedimentation tanks and land irrigation.

Poynton. The sewage works for this parish consist of sedimentation tanks and land irrigation. The new scheme for sewage works has been delayed owing to legal difficulties in obtaining possession of land.

Woodford. Further complaints have been received with regard to unsatisfactory conditions in this parish owing to the absence of an adequate sewerage and sewage disposal system. A length of a sewage polluted watercourse was piped in by the Local Authority as a temporary remedy pending the preparation of a comprehensive sewerage and sewage disposal scheme by the Council's Consulting Engineer.

Arrangements with adjoining Local Authorities are in force for the reception and treatment of sewage from houses situated in the parishes of Eaton, Nether Alderley, Butley, Chorley, Prestbury, Taxal, Upton, Tytherington, and part of Woodford—approximately 540 houses being provided for in this manner.

Following complaints respecting the grossly polluted condition of the Danes' Moss stream in the parish of Sutton, arising from the discharge of effluent from a Bone and Chemical Works, application was made to the Ministry of Health by the Rural District Council for permission to take legal proceedings under the provisions of the Rivers Pollution Prevention Acts.

After a Public Inquiry held in October by an Inspector of the Ministry of Health, the Ministry informed the Rural District Council that they were satisfied as to the source of the pollution, and the offending company was given six months in which to adopt satisfactory means of rendering the effluent harmless.

A Ministry of Health Inquiry was held on 1st July, 1932, into an application for a loan of £1,150 in respect of a scheme for the reconstruction of Sewage Disposal Works for the Rural District Councils' Housing Site at Sutton.

MALPAS RURAL DISTRICT.

The sewage of the township of Malpas was formerly dealt with by means of three separate small works. A scheme has recently been completed by means of which one works was abolished and the remaining two works reconstructed and enlarged.

NANTWICH RURAL DISTRICT.

A scheme has been completed during the year for sewer-ing the parish of Shavington and parts of the parishes of Basford, Hough, Wistaston and Wybunbury, and the reconstruction of Willaston Sewage Works.

The townships of Audlem, Bunbury and Wybunbury, and the parish of Church Coppenhall are in serious need of sewerage and sewage disposal facilities.

The attention of the Rural District Council has been called to the necessity for reconstructing the sewage works at Haslington which have become seriously overtaxed owing to development in the district, and also to the unsatisfactory condition of a small works dealing with a group of houses at Calveley.

NORTHWICH RURAL DISTRICT.

Works of sewerage and sewage disposal have been provided by the Local Authority for the undermentioned parishes:—

Parishes.	Public Sewerage Works.	Public Sewage Disposal Works.	Area in Acres.	No. of Houses.	Population.
Acton ...	1	1	1176·750	143	516
Anderton ...	2	1	525·375	102	329
Barnton ...	2	2	759·604	895	3198
Clive ...	1	1	482·245	51	178
Comberbach ...	1	1	370·065	108	368
Davenham ...	3	2	495·780	193	644
Eaton ...	1	0	455·945	48	75
Eddisbury ...	1	1	2085·026	111	402
Hartford ...	3	1	917·303	411	1429
Kinderton ...	2	1	1998·580	107	432
Leftwich ...	2	2	721·143	320	1021
Little Budworth ...	2	2	3867·676	139	568
Lostock Gralam ...	2	1	1731·462	468	1928
Marston ...	1	0	840·648	147	530
Moulton ...	1	1	474·862	294	1220
Rudheath ...	1	1	2297·005	823	2733
Stanthorne ...	1	0	1113·211	117	290
Weaverham ...	3	3	3622·684	885	3179
Wincham ...	3	2	1246·095	271	1003
Winnington ...	1	*1	578·930	316	1268

* Northwich Urban and Northwich Rural Joint Outfall Works.

The new sewage disposal works and sewer extensions for the parish of Hartford were completed during the year.

The sewerage scheme for parts of the parishes of Rudheath and Lostock Gralam has also been completed.

A sewerage and sewage disposal scheme for the parishes of Davenham, Eaton and Leftwich is in course of preparation.

The Council have authorised the preparation of a sewerage and sewage disposal scheme for the parishes of Cuddington and Weaverham.

RUNCORN RURAL DISTRICT.

Parishes of Appleton, Grappenhall, Latchford, Stockton Heath and Walton Inferior. A comprehensive sewerage and sewage disposal for these parishes is in course of preparation. The scheme will shortly be submitted to the Ministry of Health.

Parish of Helsby. The reconstruction of Helsby sewage works has been completed. The works consist of sedimentation tanks, percolating filters, humus tanks, storm tanks, and sludge drying beds.

Moore Sewage Works consists of sedimentation tanks and percolating filters.

Daresbury. A small sedimentation tank and filter deals with the sewage of this parish.

Liverpool Sanatorium, Delamere. Plans have been approved for the reconstruction of these sewage works.

TARVIN RURAL DISTRICT.

The parishes of Barton, Churton, Farndon, Tattenhall and Waverton are without any facilities for sewerage or sewage disposal. In July, 1931, the County Council called the attention of the Rural District Council to the necessity for schemes of sewerage and sewage disposal for these parishes.

A consulting engineer has been appointed by the Rural District Council to prepare schemes for the above-mentioned parishes.

The Eaton Estate has completed the reconstruction of Aldford Village Sewage Works, Saughton Village Sewage Works, and a small installation at Eccleston Ferry Farm.

TINTWISTLE RURAL DISTRICT.

The Sewage Works consist of precipitation tanks, percolating filters, humus tanks and storm tanks.

Sewage from a portion of the Matley district is received and treated at the Sewage Works of the Stalybridge and Dukinfield Joint Sewerage Board, which are supervised by the Mersey and Irwell Joint Committee.

WIRRAL RURAL DISTRICT.

Eastham Sewage Works consist of sedimentation tanks and percolating filters, and deal with the sewage of a part of Eastham, part of Willaston; also Childer Thornton and Hooton.

These Works are seriously overtaxed, and causing stream pollution. At the dissolution of the Wirral Rural District Council, on 31st March, 1933, these Works will be taken over by Bebington Urban District Council.

Willaston Sewage Works consist of sedimentation tanks and a filter, which deal with the sewage of Willaston Village. These Works are not producing a satisfactory effluent.

Thornton Hough Sewage Works are operating at full capacity, and are not producing a satisfactory effluent.

The impending dissolution of the Wirral Rural District Council has created difficulties as regards the reconstruction of these Works.

Manufacturing Trade Wastes.

FORGE COLOUR WORKS, BIDDULPH, STAFFS.

These Works are situated close to the Cheshire—Staffordshire boundary. The trade waste receives treatment in precipitation tanks before being discharged into a tributary of the River Dane. No unsatisfactory conditions have been met with during the year.

SILVERSPRINGS DYE WORKS, BUGLAWTON.

The trade waste from dying and bleaching processes is dealt with by means of sedimentation tanks and percolating filters before being discharged into the stream. Periodical samples of effluent have been satisfactory.

BRITISH SODA WORKS, ELWORTH.

Trade waste containing a large quantity of spent lime is settled out in a large “flash” on the Company’s premises. The overflow from the flash to the river Wheelock causes no pollution.

I.C.I. CHEMICAL WORKS, MIDDLEWICH.

Trade waste from the various stills is treated in large settling reservoirs before being discharged into the River Wheelock. No irregularities have been reported during the year.

I.C.I. CHEMICAL WORKS, WINNINGTON.

Trade waste from these Works is also treated in large settling reservoirs before being discharged into the river. On one occasion, attention had to be called to the discharge of an effluent containing an excessive amount of free alkali.

MILK DEPOTS.

Depôts for the collection, treatment and distribution of milk are situated at Aldford, Audlem, Aston by Nantwich, Basford Bridge, Calveley, Congleton, Cuddington, Hampton, Middlewich, Tattenhall and Wrenbury.

The depôts at Audlem, Congleton and Tattenhall discharge their trade wastes into existing sewers, but the remainder discharge wastes into the nearest watercourse after some form of treatment.

During the year, a new purification plant has been completed at Aldford. Plans have been submitted for a new purification works at Basford Bridge Depôt, which is shortly being enlarged.

BONE AND GLUE WORKS, TATTENHALL.

The trade waste from these Works is treated with alumina ferric and passed through sedimentation tanks before being discharged into the River Gowy.

BIGNALL HILL COLLIERY, TALKE, STAFFS.

BIRCHENWOOD COLLIERY, KIDSGROVE, STAFFS.

MARY HILL COLLIERY, KIDSGROVE, STAFFS.

Effluents from coal washing and chemical by-product plants at these Collieries are discharged into streams flowing into Cheshire. The plants are kept under observation, and any unsatisfactory conditions met with are taken up with the Colliery Company concerned.

The attention of one Colliery Company was called to an unsatisfactory sample of trade waste in June, 1932.

Section VIII.-Water Supplies.

Water Supplies.

In circular 1338 (May 12th, 1933), addressed to County Councils and Rural District Councils the Minister of Health states that he is very anxious that every effort should be made towards the improvement of Rural Water Supplies and strongly urges both County and Rural District Councils to use the powers conferred on them by the Local Government Act, 1929, to the fullest extent. The Minister also urges that a thorough survey of Rural Areas should be made by the Authorities concerned.

This matter had already received attention and during the past year a complete survey of all the water supplies in the County was made. It will be seen on reference to the Report on Water Supplies (with accompanying map, prepared by the County Surveyor) that on the whole the County has ample supply of water for its needs. The uncoloured areas, most of which are sparsely populated Rural Districts, are those with no piped supply, the supply being from wells, in some cases unsatisfactory, and these are being dealt with as expeditiously as possible. Already much has been done in the way of new supplies and the improving of existing ones which were liable to pollution from various sources.

It will be seen from the tables that the water supplied to the greater proportion of districts is from deep wells and does not require treatment of any kind.

Treatment is carried out in the following instances where the water supplied is surface water, *i.e.*:—

Crewe, Macclesfield, Alsager, Bollington, Knutsford,
Nantwich, Runcorn, Sandbach, Winsford.

When water has to be treated before it can be used for drinking purposes the closest supervision by an expert is essential. It is perfectly obvious that small Rural and Urban Authorities cannot afford to supply this expert supervision. However this difficulty can be overcome by the formation of Joint Water Boards when an expert can be employed to supervise quite a large area with a number of supplies. By the formation of such Water Boards it would also be possible to abandon a number of small costly undertakings where the supply for the area was sufficient from one of the sources.

MUNICIPAL BOROUGHES.

CONGLETON.

During the year, the water supply has been generally satisfactory. Four samples were submitted for chemical analysis, and eleven for bacteriological examination. Seven of the latter were taken from the town's bulk supply, and the remainder from separate springs in the gathering grounds.

Two shallow springs were found to be slightly contaminated: these were immediately disconnected from the main supply, and are now discharging into a waste drain.

With this exception, all samples submitted for examination were found to be organically pure and in every way fit for domestic purposes.

CREWE.

During the year, 295,579,760 gallons of water were supplied to the Corporation by the London, Midland and Scottish Railway Company, for the use of the town.

Property belonging to the Railway Company is supplied directly and not through the Corporation.

The quantity supplied by the Corporation is approximately 18.7 gallons per person per day.

DUKINFIELD.

The domestic water supply continues to give excellent results on its chemical analysis, and no further complaints have been received during the year of objectionable animalculæ. It is hoped that the systematic chlorination of the local reservoir which has been the practice during the year has proved effective.

MACCLESFIELD.

Application has been made for the sanction of the Ministry of Health for a loan of £20,000 for the renewal and extension of mains which will be required during the next ten years.

A leakage at Ridgeway Reservoir is being repaired.

Parts of the district still without a proper supply of water are Pexhill Road, Birtles Road and Sandy Lane.

STALYBRIDGE.

With the exception of a group of 185 houses situated in Millbrook, the town derives its water supply from a series of reservoirs in the Brushes Valley, which jointly supply Stalybridge, Ashton-under-Lyne, Dukinfield, Mossley, etc.

No samples of the main supply were taken during the year, but a sample from the Millbrook supply was submitted for examination, with satisfactory results.

URBAN DISTRICTS.

ALSAGER URBAN DISTRICT.

The quality of the water has been satisfactory, and no complaints have been received. A sample from the Public Reservoir was submitted for analysis in December. The County Analyst reports it "a water of satisfactory potable quality," B. Coli being absent in one cubic centimetre.

The Report of the makers of the Filter Plant was received and acted upon. The top layers of the filtering material were removed, new material was placed on top, and the old worked and replaced below. The plant has since worked satisfactorily.

Both the Mere Lake and the Hill service reservoirs were cleaned out during the year.

ALTRINCHAM URBAN DISTRICT.

A sample of water from the mains of Manchester Corporation was submitted by the Urban District Council to the County Analyst. It was certified as "a very soft potable water, of exceptional low salinity, and of satisfactory organic purity."

BOLLINGTON URBAN DISTRICT.

During 1932, four samples of water from the Councils' Water Undertaking were submitted for bacteriological examination. The results were highly satisfactory.

BREDBURY AND ROMILEY URBAN DISTRICT.

At intermittent periods complaints are received with respect to discolouration of water, which frequently is caused by repair work and the reaction of the water on the mains.

Shortage of water during the peak hours consequent on the heavy drought is still being experienced at times in the higher parts of the district. The Surveyor is at present preparing a scheme for improved pumping plant to replace the small pumping plant in Sandy Lane, which, owing to increasing demand, will in the near future be unable to cope with it.

Two samples of water from the mains have been submitted by the Council for bacteriological examination. Both were reported to be satisfactory.

BUGLAWTON URBAN DISTRICT.

Twelve samples of water have been analysed during the year. The water from both supplies is organically pure: the bore-hole supply has an increasing plumbo-solvent action on the pipes. The Council have been advised by the County Analyst in this connection, and have instructed a Consulting Engineer to prepare a scheme for the introduction, under pressure, of Calcium Hydrate into this supply.

At an early date, an application will be made to the Ministry of Health for a loan in respect of this scheme.

COMPSTALL URBAN DISTRICT.

Both reservoirs have been cleaned out and limed. They have been regularly inspected, and found satisfactory.

HALE URBAN DISTRICT.

In consequence of the receipt of complaints respecting the presence of an excessive amount of sediment in the water supply, a sample from the town's supply was submitted for examination on 8th August, 1932. A copy of the Analyst's Report was forwarded to Manchester Corporation, and a marked improvement was noticed afterwards. No further complaints have arisen.

HOLLINGWORTH URBAN DISTRICT.

Two samples of water have been submitted by the Council for chemical analysis and bacteriological examination, and found satisfactory.

KNUTSFORD URBAN DISTRICT.

At the request of the Knutsford Urban District Council, an investigation has been made of the Knutsford water supply.

A Report by myself and the County Analyst was considered by the Public Health Committee of the County Council in January, 1933.

Copies of this Report were sent to Knutsford Urban District Council and Knutsford Light and Water Company.

As a result, the Knutsford Light and Water Company propose to abandon their existing source of supply for domestic purposes, and have agreed to take a bulk supply from Manchester Corporation under the provisions of Knutsford Light and Water Act, 1933, not later than 28th January, 1934.

WINSFORD URBAN DISTRICT.

Following the receipt of a communication from the Medical Officer of Health for Winsford Urban District, a joint inspection of the Oakmere source of supply was made by myself and the County Analyst in September, 1932. After an examination of several samples, the County Analyst reported that there was insufficient evidence of any potential menace to the impounded Oakmere water to justify the demands of the Winsford Urban District Council.

Copies of the County Analyst's report were transmitted to the Winsford Urban District Council, and also to the Northwich Rural District Council, in whose area the water undertaking is situated.

WILMSLOW URBAN DISTRICT.

Complaints of discolouration were received during the year, and were referred to Stockport Corporation for attention.

RURAL DISTRICTS.

BUCKLOW RURAL DISTRICT.

The second part of the Mobberley Scheme was completed during the year, and eleven and a half miles of mains laid.

During the year, a report was made on the water supply of the Parish of Pickmere and a piped supply recommended from the mains of Northwich Rural District Council. A Ministry of Health Inquiry was held on 28th February, 1933, into a Scheme, which was subsequently sanctioned.

Two thousand five hundred (2,500) yards of water mains have been laid in the Parish of Warburton.

There is a great need for supplies in several other parishes, and the work should be proceeded with until there is a sufficient and wholesome supply available for every parish in the district.

CONGLETON RURAL DISTRICT.

The Supply Scheme from Mow Cop is now well advanced. The two Bore-holes, from which some 300,000 gallons per day can now be pumped, together with three reservoirs of 315,000, 150,000 and 45,000 gallons capacity, are now complete. Forty-one and a half miles of water mains, of sizes varying from 2-inch to 9-inch. diameter, have been laid, and contracts have been entered into for the erection of two Pump Houses and for the installation of pumping plant.

The Scheme, which embraces thirteen parishes, will either provide a new source of supply for the premises situated

therein, or will replace the existing sources of supply, and will have the effect of bringing under the direct control of the Council the water supply for this area. Connections to the new mains will shortly be commenced.

In addition, some 3,672 yards of water mains have been laid in the parishes of Cranage, Arclid and Astbury. Further extensions in various parts of the district, Somerford and Moston in particular, are pending, whilst a number of minor extensions have been deferred until the big scheme is complete.

Of the parishes not served by a piped supply, it must be remembered that they are purely rural in character, and the laying of mains would produce a prohibitive rate.

Generally, the water supply of the district may be considered to be very satisfactory.

MACCLESFIELD RURAL DISTRICT.

An important extension of the public water supply has been made in the Parish of Mottram-St.-Andrew, and approximately four and a half miles of new mains have now been laid, thus meeting the needs of this potentially developing area, and replacing a very indifferent supply used in the past.

In the Parish of Butley, about 600 yards of new 3-inch main have been laid during the year.

NANTWICH RURAL DISTRICT.

The Rural District Council's Water Scheme has now been carried out. Two bore-holes, fitted with up-to-date electrical pumping machinery, have been sunk, and are providing an abundant supply of wholesome water. A service reservoir has been constructed at Woore at an elevation which commands almost the whole of the Rural District. Mains have been laid to supply the whole of the townships included in the Scheme, and the work of coupling up the individual houses is proceeding.

Temporary connections have been made with the new mains so as to relieve the want of pressure in the districts of Acton, Church Minshull, Cholmondeston, Ravensmoor, and Wettenhall.

The supply of the Parish of Bickerton has engaged the attention of the Council during the year. This township is situated at so high a level that the pressure in the ordinary mains is insufficient to provide a supply. A Scheme has now been decided upon, and will shortly be submitted to the Ministry of Health.

NORTHWICH RURAL DISTRICT.

In view of increased consumption of water, the Council decided to proceed with additional spring water collection in the Crabtree Green Valley, by which it is anticipated an additional 500,000 to 700,000 gallons per day will be obtained. The first section of this work will shortly be put in hand, which is expected to yield 200,000 gallons per day. With a view to further augmenting the Council's resources, a bore-hole at Crabtree Green is being sunk to a depth of not less than 400 feet.

A Ministry of Health Inquiry was held on 9th June, 1932, respecting a scheme costing £25,200 for supplying water to the Parishes of Eddisbury, Delamere, Oakmere, and parts of Little Budworth and Marton; and also the Parishes of Kelsall and Tarvin in the Tarvin Rural District. The Scheme has received the sanction of the Ministry, and work is in progress.

The Council have also entered into an agreement to supply 10,000 gallons of water per day to a part of the Parish of Pickmere in the Bucklow Rural District.

RUNCORN RURAL DISTRICT.

A supply of water from the Vrynwy Aqueduct for the Parish of Kingsley has received the sanction of Liverpool Corporation and the Ministry of Health, and a scheme has been drafted by the Surveyor.

A Scheme for a public supply from the Parishes of Antrobus, Crowley and Seven Oaks is receiving consideration. When these schemes are completed, all the parishes in the area will have a public water supply, but there will be isolated parts in some of the parishes still dependent on local supplies. When circumstances permit, extensions can be made in these cases where local supplies are unsatisfactory.

TARVIN RURAL DISTRICT.

A Ministry of Health Inquiry was held on 18th November, 1932, respecting a scheme, costing £13,409, for supplying water to the Parishes of Kelsall and Tarvin from the Water Undertaking of the Northwich Rural District Council. The Scheme has received the sanction of the Ministry, and work is in progress.

MINISTRY OF HEALTH INQUIRIES

held in the County during 1932, at which the Department
was represented.

Date of Inquiry.	Local Authority.	Amount of Loan.	Description of Scheme.
2-6-32	Bucklow Rural District Council.	£20,870	Reconstruction of Dunham Massey Sewage Disposal Works.
9-6-32	Northwich Rural District Council.	£25 200	Works of water supply for the Parishes of Acton, Anderton, Barnton, Cogshall, Comberbach, Crowton, Cuddington, Delamere, Eddisbury, Hartford, Little Budworth, Little Leigh, Marton, Oakmere, Weaverham and Winnington.
1-7-32	Macclesfield Rural District Council.	£1,150	Reconstruction of Sewage Disposal Works at Rural District Council Housing Scheme at Sutton.
2-9-32	Wirral Rural District Council.	£1,618	Excess expenditure incurred in connection with Ness Sewerage and Sewage Disposal Scheme.
5-10-32	Cheshire County Council.	—	Application under Section 54 Local Government Act, 1888, for the alteration of the boundaries of the Administrative Counties of Chester and Lancaster.
	Lancashire County Council.		
6-10-32	Macclesfield Rural District Council.	—	Application for consent of the Ministry of Health for proceedings being taken against a manufacturer for alleged offences against Section 4 of the Rivers Pollution Prevention Act, 1876, in respect of the pollution of Danes Moss Stream in the Township of Sutton.
18-11-32	Tarvin Rural District Council.	£13,409	Works of Water Supply for the contributory Parishes of Kelsall and Tarvin.

LOCAL GOVERNMENT ACT, 1929, SECTION 57.

CONTRIBUTIONS MADE TO LOCAL AUTHORITIES BY THE COUNTY COUNCIL.

Tarvin

Rural District Council ... Works of water supply, Parish of Farndon.

Northwich

Rural District Council ... Works of sewerage, and sewage disposal, parishes of Clive and Stanthorne.

Bucklow

Rural District Council ... Works of water supply, Parish of Plumbley.

Knutsford

Urban District Council ... Works of sewerage and sewage disposal.

Congleton

Rural District Council ... Works of water supply to thirteen parishes in the Rural District.

SCHEMES TOWARDS WHICH THE COUNTY COUNCIL HAVE AGREED TO CONTRIBUTE.

Tarvin

Rural District Council ... Works of water supply for the Parishes of Kelsall and Tarvin.

Chester

Rural District Council ... Works of sewerage and sewage disposal for the Parishes of Blacon, Great Saughall and Little Saughall.

Handforth

Urban District Council ... Works of sewerage for the Urban District.

Nantwich

Urban District Council ... Works of sewerage and sewage disposal.

Runcorn

Rural District Council ... Works of sewerage and sewage disposal for the Parishes of Appleton, Grappenhall, Latchford, Stockton Heath, and Walton Inferior.

SCHEMES SUBMITTED BY THE FOLLOWING AUTHORITIES ARE UNDER CONSIDERATION.

Wilmslow

Urban District Council ... Works of sewage disposal.

Bebington

Urban District Council ... Works of sewerage and sewage disposal.

Macclesfield

Borough ... Works of sewerage.

Section IX.-Milk and Dairies (Consolidation Act), 1915.

Milk and Dairies Order, 1926.

Dairies and Cowsheds.

In the Order made under Part 5 and 6 of the above Act general provisions are laid down for the securing of cleanliness of Dairies and the protection of milk against infection and contamination.

These provisions as stated above are in fact "general," no definite standard having been defined, with the result that in a County such as Cheshire, with many Sanitary Authorities, no two Authorities had an agreed standard on which to work. It was obvious therefore that in a large milk producing County some degree of uniformity was essential. To obtain this uniformity a memorandum on the production of clean milk, erection of new and the reconstruction of old cowsheds was drawn up, agreed by the Committees concerned and circulated to every Sanitary Authority in the County. The following instructions for the erection of new cowsheds were incorporated in the memoranda and are set out as follows:—

NEW COWSHEDS.

In the case of all new cowsheds to be built, or old sheds remodelled, the following details are given to assist in the provision of a suitable cowshed:—

Air Space.—600 cubic feet per cow.

Lighting.—3 square feet of window space per cow.

Roof lighting is an advantage in addition.

Ventilation.—This is best provided by forming the upper portion of the wall windows in the form of a glazed hopper, to fall inwards. Outlets can be formed by raised ridge tiles. Holes in walls are draughty unless a deflection board is fixed on the inside.

Size. (Internal).

<i>Single Row Cowshed.</i>			<i>Minimum.</i>
Feeding passage	...	...	3ft. 6in.
Feeding trough	...	...	1ft. 9in.
Standings ..	...	...	5ft. 3in.
Dung channel	...	...	2ft. 0in.
Milking or rear passage	...	...	5ft. 0in.
Total minimum width			17ft. 6in.

In the case of a double-row cowshed having two **feeding** passages and one central **milking** passage, the minimum width is 32 ft. 6 ins.

Width.—Allow 7 feet for each double stall and 4 feet for each single stall.

Walls.—Should be of brick, stone or concrete, and the internal surface of the walls to a height of 5 feet 9 ins. should be rendered in cement to form a dado.

The low wall at the head of the feeding troughs, if formed of brick or stone, should be rendered in cement on the trough side.

Wooden walls for new cowsheds should not be permitted.

Windows.—Should allow a minimum of 3 square feet per cow. The windows are best formed as a glazed hopper, the lower third of the window being fixed and the upper two-thirds forming a glazed hopper, and made to fall inwards.

Roof lighting is very good, in addition to the ventilating windows.

Roof.—Should be covered with slates or asbestos. Raised ridge tiles provide an extra means of ventilation.

Feeding troughs.—Should be made of glazed earthenware or concrete with rounded corners. Where half pipes are used, they should be tilted up at the back and bedded in concrete.

Stall Divisions. (Boskins). Should be made of concrete or galvanised iron tubing.

Floors.—Should be formed of some durable and impervious material without joints such as concrete, finished with a "brush finish." It is advisable to pave the whole of the stall floors up to the troughs. Some cowkeepers object to paving the standings up to the trough, but this practice of complete paving tends to greater cleanliness.

The Heelstone.—Should not be less than 5 inches in height.

The Dung Channel.—Should be two feet wide.

The whole of the floor should have a slight fall to one or more outlets according to the length of the shed and formed so as to discharge any liquid on to a properly trapped gulley outside, connected to a suitable drain.

Water Supply.—If sufficient water is available, it is advisable to have the water laid on to a tap at the head of the dung channel or hollow, for the purpose of daily swilling of the floor.

Automatic drinking bowls for the cows are a great asset.

Paving.—If the whole yard is not paved, at least a good concrete footpath should be provided for cleanly access to the shed.

Manure Dump.—The manure dump should be placed well away from the shed or dairy in such a position that the cows do not walk into it.

The dump should have a concrete floor and dwarf walls on three sides. The inner surfaces of the walls should be smooth and free from "pockets."

The liquid from the dump should be capable of being collected for use.

The use of a "throwing out" door in the wall of the cowshed is not satisfactory.

Cesspool.—Where a cesspool has to be used to receive the drainage and the ground where the cesspool is placed has a good slope, a satisfactory method of emptying the cesspool is by means of a 4-inch pipe (with a controlling valve) laid from the bottom of the cesspool until, with a normal fall, the pipe track comes well above ground. The tank can then be emptied by the valve and pipe straight into a sludge cart without pumping. A cesspool need not be deep. An oblong or rectangular tank, having a "V" bottom, fitted with a sludge valve similar to a modern sewage disposal works tank is quite satisfactory.

It will be noted that the dimensions given in the memorandum for the construction of new cowsheds are based on the standards set out by the Ministry of Agriculture with slight internal alterations and as this was the standard already adopted by the Agriculture Committee for the erection of small holdings it was deemed desirable by the Milk and Dairies Committee to adopt the same for the sake of uniformity. I am of the opinion however that this standard is too low and should be considered as an absolute minimum.

Veterinary Inspection.

During the year the whole of the County Veterinary work came under review and it was decided to appoint 5 full-time Veterinary Officers in addition to the Chief County Veterinary Officer who was appointed in February, 1932.

These full time Officers are to take the place of the 21 part-time Officers in the carrying out of the work under the Milk and Dairies Acts and Orders and the Tuberculosis Order.

In the Report of the reorganisation Commission for Milk published in March, 1933, this policy is strongly advocated in the following words:—

“We are of opinion that the appointment of a whole-time Chief Veterinary Inspector by the Council of each County and County Borough is the irreducible minimum. We hope that such an appointment will be considered by the great majority of the Councils as the first step only in the setting up of a whole-time Veterinary Service. For the efficient operation of the Milk and Dairies Order the Tuberculosis Order and the Milk (Special Designation) Order, we are convinced that a whole time service is essential.”

It is interesting to note that this policy was decided upon by the Council several months before the publication of the report.

MILK AND DAIRIES ACT, SECTION 4.

- (1) During 1932 the following neighbouring Authorities notified farms as under:—

Manchester	...	92	Stretford	...	...	6
Liverpool	...	18	Birmingham	...	...	1
Warrington	...	14	St. Helens	...	...	1
Stockport	...	13	Burton-on-Trent	...	...	3
Birkenhead	...	23	Stoke-on-Trent	...	...	2
Salford	...	22	Widnes	...	...	1
Wallasey	...	3	Westminster	...	...	1
Eccles	...	5	Newton-in-Makerfield	...	...	2

- (2) During the year Sanitary Authorities within the County took 1196 samples and of these 121 proved positive, a percentage of 9.
- (3) The County Sanitary Inspector took 281 samples and 22 of these proved positive, a percentage of 8.

Arising out of (1), (2) and (3) the Veterinary Officers inspected 350 farms and complete statistical information is available for each farm.

A short summary of the results is shown.

Routine Inspections.

In addition to the above the County Veterinary Officer made routine inspections of 57 farms, at 3 of which a tubercular animal was discovered. Of a total of 1,202 cows examined 5 were notified as tubercular to the Police under the Tuberculosis Order, a percentage of .4.

SUMMARY OF RESULTS OF FARM INSPECTIONS, 1932.

SECOND VISIT.																	
No. of Cows Exam.	No. Dry or Sold.	No. of Cows found T.B. from Clinical Exam. (plus Micro).	No. of Biolog. Samples taken	Biolog. Samples found Positive.	No. of Cows Exam. on second visit.	No. Dry or Sold.	No. of Cows found T.B. from Clinical Exam. (plus Micro).	No. of Biolog. Samples taken.	Biolog. Samples found Positive.	Total No. of Cows notified from farms.	Cows found T.B. on Biolog. Exam. after negative Microscopic.						
	D. S.		Con- trol	Others.	Con- trol.	D. S.		Con- trol.	Others.	Con- trol.	Others.						
10477	677	474	146	552	328	75	49	1084	91	29	19	112	98	16	18	232	8

Section X.-Miscellaneous.

Housing.

A perusal of the statistics of the various Local Authorities with regard to Housing Inspection work shews that considerable improvements in housing conditions have been effected during the year.

Much, however, remains to be done.

With the object of accelerating the work of re-conditioning or demolishing unfit houses and re-housing displaced tenants the Ministry of Health issued Circular 1331 to all Local Authorities on 6th April, 1933. Local Authorities have been requested

- (a) to prepare and adopt a programme, the components of which should be—
 - (1) a list of the areas in which clearance is necessary, with information of the number of houses to be demolished in each, and the number of their inhabitants;
 - (2) a list of the areas in which improvement by way of re-conditioning or otherwise is necessary, with information as in (1) above;
 - (3) a time-table for the initiation, progress and completion of action to secure clearance or improvement, as the case may be, of all these areas; and
 - (4) a time-table of re-housing co-ordinated with the displacements contemplated by the time-table of clearance operations;
- (b) to make an immediate beginning with the programme by the declaration as clearance or improvement areas of such areas as can be immediately dealt with, and by making the necessary orders.

Local Authorities have been requested that the necessary surveys and inspections shall be put in hand, and that a copy of the programme adopted by the Local Authority shall be in the hands of the Ministry not later than September, 1933.

The programmes should, so far as practicable, be drawn on the basis of clearing all areas that require clearance not later than 1938.

EXTRACTS FROM REPORTS OF MEDICAL OFFICERS OF HEALTH.

HYDE MUNICIPAL BOROUGH.

A detailed inquiry was made by the Sanitary Inspectors with regard to overcrowded houses. According to the records obtained 930 houses were found to be overcrowded.

The average type of house in Hyde is that consisting of two bedrooms and two living rooms. This cannot be said to be adequate for a family comprising the parents and children of both sexes. With such a large proportion of two bedroomed houses there is a pressing need for working class houses containing three bedrooms, and as the Council is the only body at present erecting such houses to rent, the question of the provision of more houses of the multi-bedroom type should be given urgent and favourable consideration.

DUKINFIELD MUNICIPAL BOROUGH.

Since 1919 there have been 978 houses built and of this number 556 have been built by the Local Authority.

Many of the inhabitants are still living in deplorable overcrowded conditions.

The areas of slum and degenerate property which I have previously mentioned in my Annual Report . . . still remain as a menace to the health of their unfortunate occupiers, and a stimulus for future effort towards their eradication when more prosperous times permit.

Overcrowding in the area is a matter of serious moment, and there still remains a definite demand for houses at economic rents.

MACCLESFIELD MUNICIPAL BOROUGH.

Details of 29 fresh cases of overcrowding were obtained, bringing the total number of overcrowded houses on the Register to 68.

STALYBRIDGE MUNICIPAL BOROUGH.

The area known as "Mount Pleasant," comprising 74 houses is being dealt with as a Clearance Area, and a Closing Order was made on 10 houses in the Bridge Street area . . . Until new houses are provided at a reasonable rent there must perforce exist houses where overcrowding and discomfort are present.

ALSAGER URBAN DISTRICT.

Further consideration has been given to the provision of houses for the working classes . . . the question was again deferred in view of the still urgent need for economy.

ALTRINCHAM URBAN DISTRICT.

Judging by the large number of applications which the Council have received for new houses, there is evidently still a considerable shortage to provide adequately for the needs of the district. An application is to be made to the Ministry of Health to sanction a further building programme at an early date.

BOLLINGTON URBAN DISTRICT.

During the year a survey was made of the density of the population residing in two-bedroom houses in the district. After receiving the results of this survey the Ministry of Health sanctioned the erection of sixteen houses of the A 3 type.

BREDBURY AND ROMILEY URBAN DISTRICT.

The erection of houses for the working classes by private enterprise has practically ceased in the district, and the only outlook, if the housing problem is to be solved is for the Local Authority to build houses. During the year 1931, 341 applications were received for the 78 houses erected by the Council.

During the year 23 houses were found to be overcrowded, in addition to others with mixed families who wanted separate rooms . . . repeatedly week after week letters are received asking for consideration for tenancy of Council houses.

BUGLAWTON URBAN DISTRICT.

A scheme was submitted to the Ministry of Health during the year for the erection of 50 three-bedroomed houses under the 1924 Act. The Ministry reduced the number of houses to 24. I am disappointed that the full number of houses were not sanctioned as I consider that 24 are not sufficient to satisfy the legitimate demands for houses.

CHEADLE AND GATLEY URBAN DISTRICT.

In this district there is still a shortage of artisan dwellings judged by the waiting list for your Council houses and also the number of instances of more than one family living in the same house.

HALE URBAN DISTRICT.

The standard of housing is very high and the major portion of the property in the district is owner-occupied. Property is maintained in an excellent state of repair and no difficulty is experienced in the execution of repairs by owners. There are no unhealthy areas, back-to-back or tenement houses in the district.

HAZEL GROVE URBAN DISTRICT.

The need for houses in the district is being met by private enterprise. There is comparatively little overcrowding in the district, this being confined to a few large families in the poorest class who cannot afford the rents of larger houses. Three cases of overcrowding were abated during the year.

HOLLINGWORTH URBAN DISTRICT.

. . . many individual houses are dilapidated, insufficiently lighted and badly served by open ashpits and privy middens.

Many houses warrant total demolition owing to general dilapidation, the obvious problem being the re-housing of those families displaced thereby, and further building is desirable.

HOOLE URBAN DISTRICT.

The Census of 1931 showed that the density of the population in the West Ward exceeded 60 persons per acre, which appears to indicate that there is still some degree of overcrowding and a need for further activity on the part of the Council in building new houses.

LYMM URBAN DISTRICT.

As a general rule the working class houses in Lymm, as regards construction and general repair, are above the average for a country or semi-urban area. Constant supervision has prevented grosser defects from developing.

Whilst there is still a demand for houses at low rents, overcrowding has been considerably alleviated during the last seven years by the erection of 208 Council houses.

In two-bedroomed houses there still remains an undesirable amount of sexual overcrowding.

NANTWICH URBAN DISTRICT.

During the year I have inspected a large number of houses which are in a bad state of repair. Some of these are unfit for human habitation. Many houses are still overcrowded, but this will be alleviated by the 62 houses which the Council are at present erecting. They will, however, be insufficient for the requirements of the district.

NORTHWICH URBAN DISTRICT.

Unhealthy areas comprise 52 houses which are in two different localities, separate from each other. No action as regards demolition has been taken owing to the shortage of houses. Overcrowding exists in the worst areas owing to the long period when no houses were built, and the lack of accommodation in these dwellings. The Council are proceeding with a scheme for the erection of an additional 50 houses.

BUCKLOW RURAL DISTRICT.

Many applications for houses in several parishes have yet to be dealt with. During the year a comprehensive report was made on housing conditions in the parish of Partington which shewed that 75 houses were required if the applications of the workers at the Manchester Gas Works had to be met. A scheme was submitted to the Ministry for the erection of 25 houses at Partington but the Ministry reduced the number of houses to 13 to deal with cases of overcrowding in the parish.

NANTWICH RURAL DISTRICT.

There is still overcrowding in some parts of the district and in some dwellings people are living under conditions which are neither healthy or decent. The problem of poverty is at the root of the Council's difficulties in most of these cases. The building which has already taken place has made a great improvement but the work of providing decent dwellings for the poor is by no means completed.

It is hoped shortly to present a full report on insanitary houses and areas to the Council with a view to the production of a complete scheme for their removal and replacement.

NORTHWICH RURAL DISTRICT.

The number of houses erected by the Council and in hand is 756.

RUNCORN RURAL DISTRICT.

A commencement has been made for the provision of houses in the more rural parishes, under the 1930 Act, 8 houses are being erected at Appleton, and 6 at Lower Stretton.

Temporary Dwellings.

The increasing tendency within recent years for the erection of dwellings of this nature is a matter which must be viewed with some concern. The powers given under existing legislation for dealing with this type of dwelling is far from adequate and what powers there are are not exercised as rigidly as they might be by the Local Authorities, *i.e.*, Section 27 of the Public Health Acts (Amendment) Acts, 1907, which states that—

- (1) Before a temporary building is erected or set up, application for permission must be made to the Local Authority. The application must be accompanied by plans, sections, and specifications of the proposed building.
- (2) The Local Authority must signify their approval or disapproval within one month.

- (3) The Local Authority may attach to their approval any condition deemed proper with regard to the sanitary arrangements of the building, ingress and egress, protection against fire, and the period during which the building shall be allowed to stand.
- (4) Any person who sets up such a building without submitting plans, or after the disapproval or without the approval of the Local Authority, or without regard to any conditions imposed by the Local Authority, is liable to a penalty of 40s. and a daily penalty of the same amount. The Local Authority may pull down or remove the building and recover the expenses as a civil debt from the owner or from the person erecting or setting up the building.
- (5) Where any such building is pulled down or removed the Local Authority may sell the materials or any part of them and apply the proceeds towards the payment of their costs and expenses. The balance is payable to the owner.
- (6) The following buildings shall be exempt from the operation of this section:—
 - (a) Any building expressly exempt from the operation of the Public Health Acts or the bye-laws made under those Acts and in force for the time being within the district.
 - (b) Any building erected or set up for the purpose of protecting or of preventing the acquisition of rights to light.
 - (c) Any temporary building set up as part of the plant to be used in or about or in connection with the construction, alteration, or repair of any building or other work; but so far as regards only so much of this section as relates to plans, sections, and specifications.

Of the temporary dwellings in existence, caravans present the greatest problem. Other types are tents and wooden structures erected for the accommodation of persons for short periods. The tendency now is however for the latter to become occupied permanently. The danger to the health lies in the fact that the occupants of such temporary dwellings are frequently of an undesirable nature whose knowledge of sanitation is very limited. Powers to make bye-laws are granted under the H.W.C.A., 1885, such bye-laws however only permit one to deal with nuisances as they arise, so that to avoid recurrences constant supervision is necessary.

Apart from the question of lack of sanitation and water supply there is the question of the amenities of the district to be considered, there being a great tendency for these dwellings to be erected in open spaces in the neighbourhood of good class residential property.

It is therefore necessary to obtain special powers through an Act of Parliament if this matter is to be dealt with adequately. Such an Act should be applicable throughout the County and enforceable by any Local Authority.

Refuse Disposal.

In the rural and smaller urban areas the question of refuse disposal is one which requires attention. Only too often does one see in the country districts some disused pit, quarry, or deep ravine, used as a dumping ground for all manner of rubbish. Not only is this method of tipping unsightly, but it may become a serious nuisance and possible danger to health. Such an environment is ideal for the breeding of flies and rats.

There are various methods for the disposal of refuse, some of them exceedingly costly, but the only one at all feasible for rural and small urban areas is the Method of Controlled Tipping. By this method tipping can be carried out to very useful purpose without nuisance of any kind and is at the present time being carried out in certain areas of the County. It has proved a very valuable means for the reclamation of land for the purpose of open spaces for recreation and even for building purposes.

The best proved method of controlled tipping is the system adopted by Bradford and it is this system Local Authorities would be well advised to adopt. The photographs on the opposite page are an excellent example and demonstration of the vast difference between controlled and uncontrolled tipping.

Food and Drugs (Adulteration) Act, 1928.

During the year ended 31st December, 1932, 1,371 samples comprising 1,262 foods and 109 drugs were submitted for analysis to the County Public Analyst.

Of the foods 878 were milks of which 60 were reported against as not being up to standard being either adulterated or deficient in milk-fat. Sixteen samples of Whiskey contained excess water varying in amounts from 1.5 to 32 per cent. One sample of tinned cream (Irish) was deficient in fat. Other samples not up to standard consisted of sausages, beer, sweets, sweet spirits of nitre, Epsom Salts, Gregory powder and magnesia.



Tip Face shewing bad method of Tipping.



Tip Face shewing controlled Tipping method.



Finished portion of Tip sown with Grass and planted with Shrubs.

Legal proceedings were instituted in 9 cases of milk adulteration and in 10 cases of milk deficient in fat. Fines were imposed in 15 of these cases the other 4 being dismissed, defendants pleading the case of *Hunt v. Richardson*.

Of the 16 whiskeys reported against proceedings were taken in 6 cases the penalties imposed in two of the cases being £5 and costs each.

The seller of one sample of sausage containing preservative was ordered to pay costs and a chemist was proceeded against and fined for selling Epsom Salts containing metallic lead.

Full details of all the samples obtained have been supplied to the Ministry of Health.

Graded Milks.

At the end of the year there were:—

- 7 Producers licensed to sell "Certified" milk.
- 5 Producers licensed to sell "Grade A (Tuberculin Tested)" milk.
- 55 Producers licensed to sell "Grade A" milk of which
- 31 were also licensed to bottle the same.

Blind Persons' Act.

This Act is carried out under the general supervision of your Council by the Home Teaching Societies at Chester, Ashton-under-Lyne and Macclesfield. The work is exceedingly well done by these Home Teaching Societies.

The estimated cost for 1932—33 is as follows:—

BLIND PERSONS ACT.			
Grants to Voluntary Associations under Scheme made by Ministry of Health under Sec. 102 (1) Local Government Act, 1929:—			£
Chester Home Teaching Society	...	...	1,682
Macclesfield Home Teaching Society	...	...	671
Ashton-under-Lyne Home Teaching Society	...	...	636
Henshaw's Institution for the Blind	...	...	63
National Library for the Blind	...	...	44
Manchester and Salford Blind Aid Society	...	...	67
National Institute for the Blind	...	...	15
North Western Counties Association for the Blind	...	...	115
			<hr/> 3,293
National Institute for the Blind	...	...	110
National Library for the Blind (Additional Grant)	...	...	—
Printing, Postages, Travelling, &c.	...	...	27
Provision for increase of Grants to Voluntary Societies	...	...	100
Grants for Workshop Employees and Blind Copyists	...	...	150
Relief of Unemployable Blind Persons under the County Council's Scheme	...	...	9,500
Medical Examination of Blind Persons	...	...	150
			<hr/> £13,330

The number of Blind Persons in the County is about 851.

One hundred and fifteen wireless licences were issued to Blind Persons in the County during 1932.

Your Committee have arranged that before any person is placed on the Register of the Home Teaching Societies, he or she must have been certified blind by the County Oculist (Dr. Dunlop Hamilton).

Under the augmentation scheme weekly grants are being made to 465 persons and also 24 dependents grants.

LOCAL GOVERNMENT ACT, 1929.

Public Assistance Institutions.

There has been no alteration or important changes in the use of the Institutions during the year. A complete survey of the Institutions however has now been carried out with a view to deciding their future usage. A report has been submitted to the Committee which is at present under consideration.

Diets.

The Public Assistance Order (1930) provides that Dietary tables for the different classes of inmates, other than inmates of sick wards and infants, shall be framed by the Council after obtaining the written advice of the Medical Officer and every inmate shall be dieted in accordance with such Dietary tables as is applicable to his class. Previously there was no uniformity in the dietaries in the Institutions throughout the County and many were deficient in essential foods. The Order has now been complied with and a new scale of dietaries instituted common to all the Institutions and is proving most satisfactory.

The following table shows the work of the various Institutions and accommodation:—

		Arclid	Clatterbridge	Dutton	Knutsford	Macclesfield	Nantwich	Northwich	Tarvin	Totals
and Maternity Beds ..		80	291	69	172	104	142	50	32	940
Admissions and Births ..		200	1311	92	405	453	428	93	26	3928
Confinements		6	192	—	18	74	15	4	—	309
Deaths		6	175	—	17	70	13	4	—	285
Deaths		89	132	27	97	89	89	43	11	577
Patients Discharged ..		174	1115	77	308	413	351	30	13	2481
Patients staying 4 weeks or less		97	873	51	249	345	255	47	17	1934
4—13 weeks..		30	249	29	98	132	110	25	5	678
over 13 weeks		47	125	24	57	55	75	21	2	406
Average No. of Beds occupied		56	287	61	131	76	113	45	10	—
Highest No. of Beds occupied		73	312	65	146	89	129	50	12	—
(Date) ..		11/vi	22/iii	24/xi	7/xi	23/iv	8/iii	12/xii	22/x	—
Lowest No. of Beds occupied..		61	242	59	105	63	88	37	9	—
(Date) ..		6/v	2/i	14/xi	4/i	9/xii	17/xii	1/x	26/xi	—
Surgical Operations ..		4	258	—	17	15	31	2	—	327
Abdominal Operations ..		0	112	—	—	—	4	—	—	116
Ratio of average Beds occupied to available		0.7	0.99	0.88	0.76	0.73	0.79	0.90	0.29	
Ratio of Admissions* to Sick Beds†		2.5	4.5	1.5	2.5	4.0	3.0	1.8	0.8	4.0
Ratio of Deaths and Discharges† to Sick Beds‡		3.3	2.9	1.5	2.6	4.5	3.0	1.4	0.8	3.0
Confinements per Maternity Bed		3	11.3	—	2.5	8.2	5	2	—	6.8

* including Live Births.

† including Confinements and Maternal Deaths (1 at Northwich).

‡ including Maternity Beds.

The following improvements were carried out during the year:—

CLATTERBRIDGE.—Relaying Hospital bathroom floor.

DUTTON.—Painting to Nurses' Hostel.

Painting to Maternity Ward.

Relaying Hospital corridors in granolithic.

Installation of Electric Lighting.

KNUTSFORD.—Relaying floor of Men's Dayroom.

New cold storage cupboards ("Fridge" Larders) for milk.

Additional cold supply cistern for hot water supply.

MACCLESFIELD.—Removal of Chimneys in Male and Female Wards.

Repairs to stone chimney stacks.

NANTWICH.—Repairs and Improvements to bath-rooms and lavatories in Male Hospital.
Internal and External Painting.
Replacement of Hospital Range.

NORTHWICH.—Improvements to Sanitary Spurs in Hospital.

TARVIN.—Installation of Electric Lighting.

Mental Deficiency.

The question of institutional accommodation for low grade mental defectives is still acute and one of great difficulty. Cranage Hall, purchased by the Council for this purpose and opened during the year, can only at present accommodate high grade females and has done little to ease the situation. It is essential that the scheme for the extension of this Institution should be gone on with at an early date if the present position is to be overcome.

The following figures show, however, that the Committee have dealt with a large number of cases:—

1. Defectives under “Order”:—

(a) (1) No. in Institutions 162

(2) No. on Licence from Institutions 7

(b) No. under Guardianship 2

2. No. in “places of safety” 4

3. No. under Statutory Supervision 583

The table below shows the number of defectives in various Institutions.

Institution.	Male.	Female.	Total.
Arclid Union	2	2	4
Burden Homes	11	8	19
Caersws	1	3	4
Calderstones	4	—	4
Cranage Hall	—	30	30
Dudley	2	—	2
Earlswood	1	—	1
Gillibrand Hall	—	2	2
Hoole	—	9	9
Royal Albert	26	4	30
Sandlebridge	16	9	25
Seafield House	2	—	2
Stockport Union	1	1	2
St. Raphael's Colony	1	—	1
Tarvin	16	11	27
	83	79	162

Administrative County of Chester.

APPENDIX TO STATISTICS FOR 1932.

**TABLE A.—Vital Statistics for all Districts in
the Administrative County of Chester.**

**TABLE B.—Causes of Death at Different Periods
of Life in the Administrative County of
Chester, 1932.**

**TABLE C.—Population, Area, Births, Deaths,
&c.—**

Showing enumerated and estimated population, area, births and deaths, birth rates and death rates, proportion of deaths of Infants to births, deaths from several principal zymotic diseases and corresponding death rates.

TABLE C.

TABULAR STATEMENT

prepared from the Reports of Medical Officers of Health of Sanitary Districts in the Administrative County of Chester
for the year ending 31st December, 1932.

SANITARY DISTRICTS.	Population at Census, 1931.	Estimated Population in middle of 1932.	Area in Acres.	Illegitimate Births.	Still Births.	Births.	Birth- rate per 1000 Living.	Deaths.	Death- rate per 1000 Living.	Deaths from							Deaths from Principal Zymotic Diseases.	Principal Zymotic Diseases Death-rate.	Deaths under one year.	Deaths under one year to 1000 Births.	Is Hospital Isolation for Infections Diseases provided?	Name of Medical Officer of Health.
										Small-pox.	Measles.	Scarlatina.	Diphtheria.	Whooping Cough.	Fever.	Diarrhoea.						
Column Number	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22
MUNICIPAL BOROUGHS																						
Congleton	12885	12980	2572	9	11	169	13.0	171	13.1		2		1	2	1	1	7	.53	18	106	Yes. West Heath Joint	Dr. Davidson
Crewe	46069	45810	2184	24	35	612	13.3	593	12.9		13	1	4	5		3	26	.56	46	75	Yes. Crewe	Dr. Ingram
Dukinfield	19311	19390	1407	12	16	295	15.2	264	13.6		1		1	2		2	6	.30	29	98	Yes. Hyde	Dr. Roberts.
Hyde	32075	31980	3079	22	25	360	11.2	418	13.0		6		1			1	8	.25	20	55	Yes. Hyde	Dr. Brown.
Macclesfield	34905	34840	3214	23	23	441	12.6	472	13.5		1		1	6		3	11	.31	36	81	Yes. Macclesfield	Dr. J. H. D. Lawrie
Stalybridge	24831	24880	3132	16	19	336	13.5	360	14.4			1		7		1	9	.36	24	71	Small-pox only, Hartshead	Dr. W. J. Hancock
	170076	169880	15588	106	129	2213	13.0	2278	13.4		23	2	8	22	1	11	67	.39	173	78		
OTHER URBAN DISTRICTS																						
Alderley Edge	3145	3084	678			28	9.0	34	11.0												Yes. Monsall	Dr. Baxter
Alsager	2852	2868	2241			21	7.3	29	10.1												Yes. Weet Heath Joint	Dr. Harpur
Altrincham	21356	21300	1425	12	16	306	14.3	245	11.5		2		1	1		2	6	.28	20	65	Yes. Altrincham	Dr. Reid Duncan
Bebington	26740	27520	3446	6	24	439	15.9	247	8.9				3			1	5	.18	24	54	Yes. Wirral Joint	Dr. J. B. Yeoman
Bollington	5027	4993	1291		3	54	10.8	75	15.0					1			1	.20	5	92	Yes. Macclesfield	Dr. Chadwick
Bowdon	3285	3364	850	4	1	36	10.7	51	15.1										2	55	Yes. Altrincham	Dr. G. K. Thompson
Bredbury & Romiley	10876	11230	3990	1	6	143	12.7	136	12.1		1		1				2	.17	4	27	Yes. Hyde	Dr. F. Cant
Buglawton	1651	1691	2911	1	4	36	21.2	24	14.1					1			1	.59	2	55	Yes. West Heath Joint	Dr. P. M. Davison
Cheadle & Gatley	18473	19300	5087	7	8	256	13.2	178	9.2		1			1			2	.10	13	50	Yes. Monsall and Small-pox Hospital	Dr. J. H. Godson
Compstall	865	839	903	1	1	11	13.1	11	13.1										1	90	Yes. Hyde	Dr. A. Jackson
Ellesmere Port	18911	19320	3449	10	18	442	22.8	171	8.8				10	2		3	15	.77	30	67	Yes. Wirral Joint	Dr. J. B. Yeoman
Hale	10667	10840	1288	2	5	123	11.3	122	11.2					1			1	.09	3	24	Yes. Monsall	Dr. Lund
Handforth	1031	1139	1311		1	17	14.9	11	9.6												No.	Dr. A. Nowell
Hazel Grove	13300	13620	5447	4	7	128	9.3	174	12.7							2	2	.14	12	93	Yes. Hyde	Dr. Thos. Moore
Hollingworth	2299	2250	2086		2	22	9.7	40	17.7										1	45	Small-pox, Mottram Moor	Dr. Roberts.
Hoole	5889	5936	334	4	6	63	10.6	56	9.4					2			2	.33			Yes. Chester	Dr. F. J. Butt
Hoylake	16631	16780	1979	9	8	141	8.4	196	11.6		1		4		1		6	.35	2	14	Yes. Wirral Joint	Dr. J. B. Yeoman
Knutsford	5879	5685	1760		2	90	15.8	64	11.2								1		6	66	Yes. Monsall	Dr. Blease
Lymm	5643	5686	4374	3	3	82	14.4	74	13.0				5			1	6	1.0	6	73	Yes. Lymm	Dr. Bennett
Marple	7389	7333	3055	2	5	82	11.1	113	15.4					1			1	.13	6	73	Yes. Hyde	Dr. Jackson
Middlewich	5458	5504	1082	1	4	89	16.1	59	10.7		2			1		1	4	.72	5	56	Yes. Northwich Joint and Marbury	Dr. S. L. Melville
Mottram	2636	2591	1084	2	2	35	13.5	46	17.7										3	85	Yes. Hyde and Small-pox, Mottram Moor	Dr. G. J. Awhurn
Nantwich	7133	7095	703	8	4	100	14.0	113	15.9				7	1		2	10	1.4	5	50	Yes. Alveston Joint	Dr. J. D. Munro
Neston	5676	5761	3331	6	4	97	16.8	68	11.8					1			1	.17	8	82	Yes. Wirral Joint	Dr. J. B. Yeoman
Northwich	18732	18410	1398	11	13	217	11.7	234	12.7		1						1	.05	19	87	Yes. Northwich Joint and Marbury	Dr. Crow
Runcorn	18127	18090	1274	8	17	272	15.0	216	11.9				1	3		1	5	.27	24	88	Yes. Runcorn	Dr. Cullen
Sale	28071	28720	3629	10	12	368	12.8	334	11.6		2		2	4		1	9	.31	23	62	Yes. Monsall	Dr. H. Mial Woodhead
Sandbach	6411	6456	2694	2	4	95	14.7	75	11.6										7	73	Yes. West Heath Jt. & Arclid for Small-pox	Dr. C. H. Wentworth Bennett
Tarporley	2452	2471	6195	3	2	37	14.9	28	11.3										1	27	Yes. Chester	Dr. W. E. Burton
Wilmslow	9760	9898	5090	2	6	120	12.1	121	12.2				1	1			2	.20	3	25	Yes. Monsall.	Dr. A. Byers
Winsford	10988	10900	5785	9	2	166	15.2	138	12.6							1	2	.18	11	66	Yes. Davenham and Marbury	Dr. L. J. Picton
Yeardsley-cum-Whaley	1745	1746	1323	1	1	21	12.0	21	12.0										1	47	Yes. Hyde and High Peak	Dr. F. G. Allan
	299108	302420	81493	129	191	4137	13.6	3504	11.5		10		36	22	1	15	84	.27	248	59		
RURAL DISTRICTS																						
Bucklow	20115	20870	51239	7	9	276	13.2	211	10.1		2		2	2		1	7	.33	15	54	Yes. Monsall	Dr. Blease
Chester	16165	16430	34253	5	5	215	13.0	176	10.7		2	1		2			5	.30	8	37	Yes. Chester	Dr. W. E. Burton
Congleton	13124	13390	40152	5	11	175	13.0	152	11.3										14	83	Yes. West Heath Joint	Dr. C. H. Wentworth-Bennett
Disley	3212	3196	2466	1	2	40	12.5	40	12.5										1	25	Yes. Hyde	Dr. G. B. Pemberton
Macclesfield	19161	19250	79494	5	13	224	11.6	209	10.8										16	71	Yes. Macclesfield and Higher Snton	Dr. R. Proudfoot
Malpas	4283	4308	21405	3	2	75	17.4	65	15.0										5	66	Yes. Chester [for Small-pox]	Dr. W. E. Burton
Nantwich	26626	26640	98466	13	26	390	14.6	305	11.4		1			5		2	8	.30	20	51	Yes. Nantwich Joint and Small-pox	Dr. R. T. Turner
Northwich	26498	26820	54300	14	17	456	17.0	315	11.7		2			2	2	3	9	.33	28	61	Yes. Northwich Joint	Dr. J. Crow
Runcorn	32725	32700	49117	7	19	380	11.6	324	9.9		1		2	2			5	.15	12	30	Yes. Dutton. Moore (Small-pox)	Dr. Manson
Tarvin	13279	13110	56871	11	7	196	14.9	164	12.5					1	1		2	.15	9	45	Yes. Chester	Dr. W. E. Burton
Tintwistle	2020	2006	13619	1	3	13	8.9	30	14.9												Yes. Mottram Moor	Dr. G. J. Awhurn
Wirral	28904	29680	32717	15	22	414	13.9	282	9.5				1	4		2	8	.26	18	43	Yes. Wirral Joint	Dr. J. B. Yeoman
	206112	208400	534099	87	136	2859	13.7	2273	10.0		8		8	15	3	8	44	.21	146	51		
Administrative County	675296	680700	631180	322	456	9209	13.5	8055	11.8		41	4	52	59	5	34	195	.28	567	61		

CAUSES OF DEATH AT DIFFERENT PERIODS OF LIFE IN THE ADMINISTRATIVE
COUNTY OF CHESTER, 1932

Special causes included in No.
35 above—
Polimyelitis ...
Polioencephalitis

TABLE A.—Continued.

VITAL STATISTICS FOR ALL DISTRICTS IN ADMINISTRATIVE COUNTY OF CHESTER, 1932.

CAUSES OF DEATH.	Stalybridge M.B.		Tarporley U.D.		Wilmslow U.D.		Winsford U.D.		Yeardsley- cum-Whaley U.D.		Bucklow R.D.		Chester R.D.		Congleton R.D.		Disley R.D.		Macclesfield R.D.		Malpas R.D.		Nantwich R.D.		Northwich R.D.		Runcorn R.D.		Tarvin R.D.		Tintwistle R.D.		Wirral R.D.		Aggregate of R.D.'s.		
(Civilians only)	M.	F.	M.	F.	M.	F.	M.	F.	M.	F.	M.	F.	M.	F.	M.	F.	M.	F.	M.	F.	M.	F.	M.	F.	M.	F.	M.	F.	M.	F.	M.	F.	M.	F.	M.	F.	
ALL CAUSES	182	178	17	11	54	67	72	66	10	11	111	100	86	90	80	72	15	25	112	97	36	29	162	143	155	160	165	159	76	88	14	16	142	140	1154	1119	
1 Typhoid and Paratyphoid Fevers	1	2
2 Measles	1	1	2	5	3
3 Scarlet Fever	1	1	1	1
4 Whooping Cough	3	4	...	...	...	1	...	...	...	...	2	...	1	1	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	10	5
5 Diphtheria	1	...	1	1	1	3	3
6 Influenza	3	2	...	...	3	1	2	1	...	...	2	3	5	3	3	3	1	1	1	4	...	1	5	2	4	1	4	7	4	3	...	2	1	2	30	32
7 Encephalitis Lethargica	1	2
8 Cerebro-Spinal Fever	1	2
9 Tuberculosis of Respiratory System	14	3	3	...	2	...	2	2	...	...	6	3	4	4	3	1	2	1	3	2	2	...	3	4	2	5	13	5	5	1	...	1	13	3	56	30
10 Other Tuberculous Diseases	2	6	1	...	...	...	...	2	...	...	...	...	2	1	1	...	...	...	3	1	...	1	...	...	1	3	5	3	1	1	...	...	2	...	15	10
1 Syphilis	2	...	...	...	...	...	...	2	...	...	...	...	...	...	...	...	...	...	1	...	1	...	2	...	...	...	...	...	...	...	...	...	...	...	4	...
12 General Paralysis of the Insane, Tabes Dorsalis	1	1	3	1
13 Cancer, Malignant Disease	22	24	4	4	15	8	8	11	3	...	17	13	8	14	13	11	2	7	14	16	3	2	16	25	26	28	26	21	15	16	1	1	16	21	157	175	
14 Diabetes	...	1	1	1	1	2	...	1	2	2	3	1	1	2	1	...	1	1	...	1	3	3	2	4	1	3	1	1	3	16	20
15 Cerebral Haemorrhage, &c.	12	17	2	2	...	7	1	3	1	...	5	9	1	7	3	7	...	3	6	13	2	...	9	9	4	8	9	6	3	6	...	2	5	9	47	79	
16 Heart Disease	46	51	1	1	9	18	20	15	2	4	19	22	18	20	19	14	2	3	32	19	12	12	50	32	24	29	24	39	16	21	5	5	43	48	264	264	
17 Aneurysm	...	1	...	...	...	...	...	1	...	...	2	1	1	...	...	...	...	...	1	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	4	1
18 Other Circulatory Diseases	3	4	1	1	1	3	3	3	...	1	6	3	3	5	2	1	3	4	7	6	1	1	4	4	6	13	8	6	1	3	2	3	6	8	49	57	
19 Bronchitis	12	10	...	1	1	1	6	...	...	1	7	5	2	6	4	4	...	2	1	4	2	2	4	5	1	10	3	8	3	2	1	1	3	2	31	61
20 Pneumonia (all forms)	7	9	2	...	2	3	2	5	...	...	4	5	1	6	7	2	1	1	3	2	...	...	9	4	11	11	14	8	4	3	1	...	5	4	60	46
21 Other Respiratory Diseases	1	1	...	...	...	...	1	...	...	...	...	...	1	1	...	1	...	...	2	1	...	...	2	1	2	...	1	2	...	...	...	...	4	...	12	6
22 Peptic Ulcer	1	1	1	...	1	1	...	1	1	2	2	2	...	1	2	1	...	9	4
23 Diarrhoea, &c. (under 2 years)	...	1	1	1	1	1	2	1	2	...	5	3
24 Appendicitis	1	1	...	...	1	1	1	1	...	...	...	...	1	...	1	...	...	...	...	...	1	...	1	2	2	2	...	4	1	...	...	...	1	...	8	8
25 Cirrhosis of Liver	2	...	...	...	1	...	1	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	1	...	1	...	1	...	1	...	...	...	...	1	4	1
26 Other Diseases of Liver, &c.	...	1	...	...	...	...	...	...	...	...	...	...	...	2	...	1	...	...	...	1	...	...	1	1	1	...	...	1	...	4	...	...	...	5	2	15
27 Other Digestive Diseases	3	5	...	...	...	4	2	2	...	...	1	3	2	1	2	1	...	...	7	4	...	1	3	2	8	5	3	2	1	5	...	...	7	1	34	25
28 Acute and Chronic Nephritis	11	2	...	1	5	2	6	3	1	1	5	2	6	3	...	3	...	...	8	3	2	4	2	8	7	5	11	6	2	2	1	...	5	5	49	41
29 Puerperal Sepsis	...	...	...	...	...	...	...	1	...	...	...	...	...	...	...	1	...	...	...	...	...	...	...	...	...	1	...	...	...	...	...	...	...	1	...	3
30 Other Puerperal Causes	...	1	...	...	...	1	...	1	...	1	...	1	...	...	1	...	...	...	...	...	...	...	...	...	...	...	1	...	...	...	...	...	...	...	...	7
31 Congenital Debility, Premature Birth, Malformation, &c.	8	6	1	...	3	...	2	2	...	1	5	3	4	1	6	3	...	...	5	4	2	...	8	3	8	7	4	1	2	2	...	...	4	9	48	33
32 Senility	5	12	...	...	3	6	1	1	1	...	2	8	2	6	1	7	1	1	2	2	1	1	10	14	3	3	1	4	1	6	2	1	...	4	26	57
33 Suicide	1	1	...	...	2	...	2	...	...	...	4	...	2	1	2	...	...	...	1	...	...	...	1	1	2	4	3	1	2	1	...	...	3	1	20	9
34 Other Violence	9	3	...	1	...	2	6	1	1	...	8	3	4	2	4	1	...	...	5	2	2	...	4	3	10	8	10	5	3	5	...	...	6	1	56	30
35 Other Defined Diseases	13	10	1	...	4	7	5</																														

TABLE A.—Continued.

VITAL STATISTICS FOR ALL DISTRICTS IN ADMINISTRATIVE COUNTY OF CHESTER, 1932.

CAUSES OF DEATH.	Hollingworth U.D.		Hoole U.D.		Hoylake and West Kirby U.D.		Hyde M.B.		Knutsford U.D.		Lymm U.D.		Macclesfield M.B.		Marple U.D.		Middlewich U.D.		Mottram-in-Longdendale U.D.		Nantwich U.D.		Neston and Parkgate U.D.		Northwich U.D.		Runcorn U.D.		Sale U.D.		Aggregate of U.D's.		Sandbach U.D.		
(Civilians only)	M.	F.	M.	F.	M.	F.	M.	F.	M.	F.	M.	F.	M.	F.	M.	F.	M.	F.	M.	F.	M.	F.	M.	F.	M.	F.	M.	F.	M.	F.	M.	F.	M.	F.	
ALL CAUSES	27	13	31	25	90	106	198	220	33	31	40	34	230	242	59	54	32	27	20	26	57	56	40	28	133	101	120	96	157	177	2876	2906	33	42	
1 Typhoid and Paratyphoid Fevers	...	...	...	...	1	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	2	...	...	...
2 Measles	1	...	3	3	1	1	1	1	2	...	17	16
3 Scarlet Fever	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	2	...	...	...
4 Whooping Cough	...	...	1	1	...	...	...	...	...	...	...	...	3	3	1	...	...	1	...	...	...	1	...	1	...	...	2	1	4	...	26	18	...	...
5 Diphtheria	...	...	...	...	1	3	...	1	...	...	3	2	1	...	...	...	...	...	...	...	3	4	...	...	...	...	1	...	1	1	21	23	...	...
6 Influenza	...	...	1	1	2	4	2	5	...	1	2	1	4	6	...	1	4	1	..	...	...	2	2	...	2	6	6	...	8	3	78	68	...	...
7 Encephalitis Lethargica	...	...	...	...	1	...	...	..	...	...	..	...	4	...	...	...	...	...	...	...	...	...	1	...	...	..	2	...	...	8	5	...	...
8 Cerebro-Spinal Fever	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	1	...	...	...	2	...	...	...
9 Tuberculosis of Respiratory System	...	...	1	3	4	3	13	11	2	1	1	...	12	6	2	2	2	1	2	...	3	5	4	2	9	3	6	3	15	9	155	126	3	..
10 Other Tuberculous Diseases	1	...	...	.	3	...	...	3	1	..	1	...	4	..	1	...	1	...	...	...	2	...	1	...	1	1	5	2	...	...	39	29	1	1
11 Syphilis	...	...	...	...	...	...	...	1	1	...	...	...	...	1	...	...	...	...	...	...	...	...	...	...	...	1	...	...	1	...	8	7	...	...
12 General Paralysis of the Insane, Tabes Dorsalis	...	...	...	1	...	...	1	...	..	...	...	...	2	1	...	...	...	...	...	...	...	...	...	...	3	...	...	1	1	...	15	5	...	...
13 Cancer, Malignant Disease	4	2	4	6	10	16	31	36	3	2	9	5	28	37	7	9	3	7	2	2	8	11	5	1	18	13	13	14	18	22	369	401	4	5	
14 Diabetes	1	...	...	...	2	3	3	5	3	1	...	...	2	5	2	...	1	...	..	2	...	2	...	1	1	3	2	...	1	1	39	52	...	1
15 Cerebral Hæmorrhage, &c.	1	1	2	...	4	6	8	14	1	1	1	1	9	24	3	4	2	...	1	2	5	2	2	1	3	2	4	8	14	13	145	191	2	2	
16 Heart Disease	7	4	13	3	26	34	41	43	4	10	3	9	41	52	12	6	5	8	4	4	13	17	12	10	28	24	18	15	27	35	588	654	4	5	
17 Aneurysm	...	...	...	...	...	...	1	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	3	5	...	...
18 Other Circulatory Diseases	3	...	...	2	8	6	11	9	2	2	2	...	18	14	10	3	5	5	2	2	2	...	1	1	6	6	11	3	11	20	161	146	...	1
19 Bronchitis	...	...	...	1	..	1	9	8	2	2	...	2	7	3	...	3	...	...	1	...	1	3	2	1	3	3	6	6	2	9	101	112	...	1
20 Pneumonia (all forms)	2	1	1	1	3	5	14	12	6	...	2	1	11	8	5	4	...	2	1	2	...	...	2	...	9	10	6	7	8	13	155	137	4	1
21 Other Respiratory Diseases	...	1	...	...	2	...	2	...	...	...	1	...	...	4	...	2	...	...	...	...	1	1	...	...	1	1	...	1	...	20	17	...	...
22 Peptic Ulcer	...	...	...	...	...	...	2	...	1	...	2	...	6	1	1	1	...	...	...	1	...	...	...	1	...	1	...	1	3	32	15	...	...
23 Diarrhœa, &c. (under 2 years)	...	...	...	...	...	...	1	.	...	...	1	...	1	2	...	...	1	...	...	...	1	1	...	...	...	1	...	...	1	13	13	..	...
24 Appendicitis	...	...	...	...	1	4	...	2	...	...	...	...	2	3	1	1	...	...	...	...	1	...	...	...	3	2	1	...	1	2	22	25	2	1
25 Cirrhosis of Liver	1	...	...	...	...	...	...	1	...	...	1	...	...	...	...	...	...	1	...	...	3	...	...	...	...	...	...	...	...	...	14	3	1	...
26 Other Diseases of Liver, &c.	...	...	...	...	..	1	2	1	...	...	...	...	...	...	...	...	...	...	...	...	...	...	1	1	1	...	1	2	...	1	11	13	...	...
27 Other Digestive Diseases	2	1	1	2	2	7	4	7	1	...	1	2	3	3	1	3	...	...	1	...	2	...	...	2	2	1	3	3	...	4	56	93	...	2
28 Acute and Chronic Nephritis	3	...	2	...	3	2	5	8	1	1	1	2	7	12	3	...	...	...	...	3	2	1	...	1	12	6	4	1	6	9	133	119	1	6
29 Puerperal Sepsis	...	...	...	...	...	1	...	1	...	...	..	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	8	...	1
30 Other Puerperal Causes	...	...	...	...	...	...	...	2	...	...	...	...	...	...	2	...	...	...	...	...	...	...	...	...	...	...	...	...	...	4	...	24	...	...
31 Congenital Debility, Premature Birth, Malformations, &c.	...	...	...	...	1	1	4	7	3	2	...	3	14	8	3	...	3	...	2	...	2	1	3	3	7	2	4	8	5	8	125	103	5	...
32 Senility	...	2	1	...	1	1	13	15	...	4	2	1	11	21	1	2	1	...	1	1	2	2	...	...	4	5	3	5	5	1	98	130	3	9
33 Suicide	1	...	...	...	2	...	5	3	...	...	...	...	3	4	...	...	...	...	...	1	3	...	...	...	4	2	2	...	3	1	51	20	1	...
34 Other Violence	...	...	1	2	2	1	5	2	1	...	4	1	13	4	3	3	...	...	2	1	2	..	2	...	3	4	6	3	7	3	116	53	...	1
35 Other Defined Diseases	1	1	3	2	10	6	18	20	1	4	5	2	22	19	3	8	3	...	1	5	2	3	2	2	12	6	12	10	15	12	247	263	2	5	
36 Causes Ill-defined or Unknown	...	...	...	...	...	1	...	...	...	...	...	...	1	1	...	...	..	...	...	...	...	...	...	...	...	...	...	2	...	2	4	12	...	...
Special Causes (included in No. 35 above)—																																			
Small-pox	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...
Poliomyelitis	...	...	...	...	...	...	...	...	...	...	...	...	...	...	1	...	..	...	...	...	...	...	...	...	...	...	...	...	...	...	3	...	...	...
Polioencephalitis	...	...	...	...	...	...	1	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	1	...	...	...
Deaths of Infants (under one year)	Total	...	1	...	1	1	10	10	4	2	3	3	22	14	5	1	4	1	3	...	3	2	5	3	12	7	11	13	12	11	246	175	6	1	
	Legitimate	...	1	...	1	...	9	8	3	1																									

TABLE A.

VITAL STATISTICS FOR ALL DISTRICTS IN ADMINISTRATIVE COUNTY OF CHESTER, 1932.

CAUSES OF DEATH.	Alderley Edge U.D.		Alsager U.D.		Altrincham U.D.		Behington and Brom- borough U.D.		Bollington U.D.		Bowdon U.D.		Bredbury and Romiley U.D.		Buglawton U.D.		Cheadle and Gatley U.D.		Compstall U.D.		Congleton M.B.		Crewe M.B.		Dukinfield M.B.		Ellesmere Port and Whitby U.D.		Hale U.D.		Handforth U.D.		Hazel Grove and Bram- hall U.D.	
(Civilians only)	M.	F.	M.	F.	M.	F.	M.	F.	M.	F.	M.	F.	M.	F.	M.	F.	M.	F.	M.	F.	M.	F.	M.	F.	M.	F.	M.	F.	M.	F.	M.	F.	M.	F.
ALL CAUSES	15	19	12	17	110	135	130	117	37	38	17	34	61	75	12	12	89	89	6	5	73	98	306	287	124	140	89	82	69	53	2	9	89	85
1 Typhoid and Paratyphoid Fevers	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	1	...	...	...	...	...	...	...	...	...	...	...	...	...
2 Measles	...	...	...	...	1	1	...	...	...	...	...	...	...	1	...	...	...	1	...	...	1	1	5	8	1	...	...	...	...	...	...	...	...	...
3 Scarlet Fever	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	1	...	...	...	...	...	...	...	...	...	...	...
4 Whooping Cough	...	...	...	...	1	...	...	1	1	...	...	...	...	...	1	...	1	...	...	...	2	...	3	2	...	2	2	...	1	...	...	...	...	...
5 Diphtheria	...	...	...	...	1	...	3	...	...	...	...	...	1	...	...	...	...	...	...	...	1	3	1	...	1	3	7	...	...	...	...	...	...	...
6 Influenza	2	2	...	...	3	4	2	2	...	2	...	1	1	1	4	...	1	1	...	2	2	2	14	8	2	5	...	...	2	...	...	...	4	3
7 Encephalitis Lethargica	...	...	...	...	1	...	1	...	...	...	...	...	...	...	...	...	...	...	...	...	1	...	...	2	...	...	...	...	...	...	...	...	...	...
8 Cerebro-Spinal Fever	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	1	...	...	...	...	...	...	...
9 Tuberculosis of Respiratory System	2	1	1	2	9	5	5	11	1	1	1	2	2	4	...	...	3	4	...	...	1	7	11	11	6	17	4	3	5	2	...	...	4	2
10 Other Tuberculous Diseases	...	...	1	...	2	4	1	2	...	...	...	2	...	...	...	...	5	...	...	...	...	1	1	1	2	2	1	...	...	...	...	1	1	1
11 Syphilis	...	...	...	...	...	1	1	...	1	1	...	...	...	...	...	...	...	...	...	...	...	...	1	...	1	...	...	...	...	...	...	...	...	...
12 General Paralysis of the Insane, Tabes Dorsalis	...	...	1	...	...	...	...	...	...	...	...	...	...	1	...	...	...	...	...	...	...	3	...	2	...	2	...	...	...	...	...	...	...	...
13 Cancer, Malignant Disease	3	2	...	...	10	14	20	16	4	4	...	5	10	12	1	1	14	19	...	...	8	16	35	34	22	20	7	8	5	5	1	1	10	9
14 Diabetes	...	1	1	...	1	2	3	3	...	1	...	1	1	2	...	...	...	1	1	...	1	2	7	2	...	2	1	3	...	2	...	...	3	1
15 Cerebral Hæmorrhage, &c.	...	2	...	3	8	10	9	6	3	3	1	1	4	4	...	...	5	1	...	...	4	8	20	21	3	7	5	6	1	2	...	...	4	7
16 Heart Disease	2	6	2	4	18	26	36	26	7	8	5	7	11	18	1	6	19	18	1	2	20	16	66	68	17	26	12	16	20	15	1	2	14	22
17 Aneurysm	...	...	...	...	...	...	...	...	...	...	1	...	...	...	...	...	1	...	...	...	...	1	...	...	1	1	...	...	...	...	...	...	...	...
18 Other Circulatory Diseases	2	1	1	2	5	4	5	1	3	4	...	2	3	1	1	...	5	9	...	1	4	4	18	15	2	5	3	1	6	3	...	2	3	5
19 Bronchitis	...	...	...	2	7	13	6	5	2	1	3	2	2	5	2	...	5	2	...	...	1	2	5	9	4	5	6	4	1	4	...	1	5	1
20 Pneumonia (all forms)	1	1	...	...	6	4	5	9	2	...	...	2	3	3	...	...	...	1	...	...	7	5	13	10	12	9	6	4	2	1	...	...	11	4
21 Other Respiratory Diseases	...	...	...	...	1	1	...	1	...	...	...	...	...	...	...	...	2	...	...	...	...	...	3	2	2	...	...	1	2	...	...	...	2	...
22 Peptic Ulcer	...	...	1	...	1	...	3	...	...	...	1	...	1	1	...	...	...	1	...	...	1	...	2	2	1	...	2	...	1	...	...	...	2	2
23 Diarrhœa, &c. (under 2 years)	...	...	...	...	...	2	1	...	...	...	...	...	...	...	...	...	...	...	...	...	1	2	1	2	...	2	1	...	...	...	...	...	...	2
24 Appendicitis	...	...	...	...	...	2	...	...	...	...	...	...	...	...	...	...	1	1	...	...	...	...	3	1	...	...	3	2	...	1	...	...	...	...
25 Cirrhosis of Liver...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	2	...	1	...	...	1	1	...	...	...	...	...	...
26 Other Diseases of Liver, &c.	...	...	...	...	...	...	1	...	...	3	...	...	2	1	...	...	...	1	...	...	...	1	2	...	1	...	...	...	...	...	...	...	...	...
27 Other Digestive Diseases	...	...	...	...	4	3	2	2	1	2	...	1	1	3	...	...	3	7	...	...	2	5	5	7	1	8	3	...	3	4	...	...	3	3
28 Acute and Chronic Nephritis	1	...	1	...	9	9	7	9	2	...	...	1	3	5	...	...	5	4	1	...	3	2	10	11	14	8	2	3	1	4	...	2	1	...
29 Puerperal Sepsis	...	...	...	1	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	2	...	...	...	...	...	...	...	...	...	1
30 Other Puerperal Causes	...	...	...	...	...	3	...	...	...	...	...	...	...	1	...	1	...	1	...	...	...	...	3	...	2	...	...	...	...	1	...	...	...	...
31 Congenital Debility, Premature Birth, Malformations, &c.	...	...	...	1	3	8	3	10	3	...	2	...	3	...	...	...	6	2	1	...	2	4	16	12	8	6	7	4	...	...	...	...	1	4
32 Senility	...	...	...	1	1	4	5	2	1	...	1	...	5	3	...	2	2	2	1	...	3	5	11	9	...	1	1	2	2	2	...	...	7	9
33 Suicide	...	...	...	...	3	...	2	1	...	...	1	...	...	...	...	...	2	...	...	...	1	4	6	1	4	1	1	...	1	...	...	...	1	1
34 Other Violence	1	...	1	...	2	2	5	3	4	...	...	3	3	...	...	1	1	2	...	...	7	1	14	3	4	...	5	3	1	2	...	...	1	1
35 Other Defined Diseases	1	3	2	1	12	12	4	7	2	8	2	3	5	8	2	1	9	9	1	...	1	9	24	40	11	12	10	13	13	4	...	...	12	7
36 Causes Ill-defined or Unknown...	...	...	...	...	1	1	...	...	...	...	...	...	...	1	...	...	1	...	...	...	...	...	...	1	...	...	...	...	1	1	...	...	...	...
Special Causes (included in No. 35 above)—																																		
Small-pox	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...
Polio-myelitis	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...
Polio-encephalitis	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...
Deaths of Infants (under one year)	Total	...	...	1	7	13	10	14	5	...	2	...	4	...	2	...	8	5	1	...	9	9	28	18	17	12	20	10	3	...	...	...	7	5
	Legitimate	...	...	1	7	13	8	14	5	...	1	...	4	...	2	...	8	5	1	...	7	9	27	17	15	10								



R1/71

